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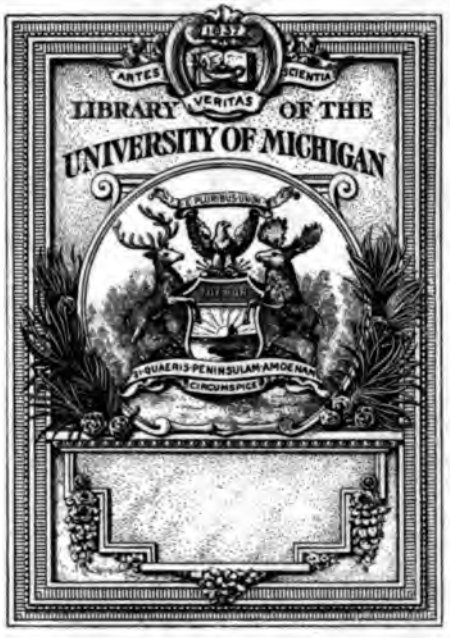
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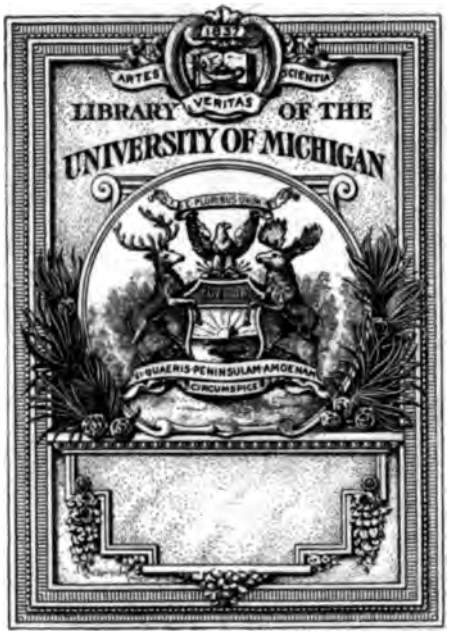
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FORTY-EIGHTH ANNUAL REPORT

OF THE

SUPERINTENDENT OF PUBLIC INSTRUCTION

OF

THE STATE OF MICHIGAN,

WITH

ACCOMPANYING DOCUMENTS

FOR

THE YEAR 1886.

BY AUTHORITY.

LANSING:
THORP & GODFREY, STATE PRINTERS AND BINDERS.
1887.

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STATE OF MICHIGAN,
DEPARTMENT OF PUBLIC INSTRUCTION,
Lansing, December 31, 1886.

To His Excellency, RUSSELL A. ALGER,
Governor of the State of Michigan:

SIR,—In compliance with the provisions of law, I have the honor herewith to transmit through you to the Legislature, the annual report of the Superintendent of Public Instruction, together with the accompanying documents, for the year 1886.

Very respectfully,
Your obedient servant,
THEODORE NELSON,
Superintendent of Public Instruction.

ANNUAL REPORT.

It is not necessary, nor does it seem expedient, to attempt to elaborate in this report the superintendent's views touching school legislation; especially, since the matter will receive the careful attention of the eminent scholar, and veteran educator, who succeeds to the administration of this department. In the main, our school laws are enlightened and liberal, and such as conserve the true interests, and comport with the dignity of a great and free commonwealth. However, school laws are only the mechanism, or mode, which we employ to diffuse learning. Simplicity of construction, so as to consume in their working the least possible friction, is an eminent *desideratum.*

COUNTY SUPERVISION.

As might be anticipated, experience demonstrates the efficiency and value of an enlightened supervision of any and every system of public instruction. Our cities wisely entrust this supervision to a single person. The advantages of this method of organization are quite obvious, and are well certified by prolonged experience. It secures unity, it inspires emulation, it promotes a nobler standard of merit, it commands more intelligent and competent teaching gifts. It seems rational to anticipate that a similar supervision of rural schools would tend to the accomplishment of similar results. Some system of county superintendence, well remunerated, and, so far as possible, removed from the petty jealousies and intrigues of political partisanship, would be, undoubtedly, a measure of wise and needed legislation. Objections raised on the score of economy are scarcely pertinent. It may be doubted whether it would add a farthing's weight to the burden of school taxation. Yet, if so, is the objection really valid and worthy of serious consideration? Not in a free commonwealth whose very existence depends upon the intelligence and virtue of its people. Extravagance in government expenditure is pernicious, no doubt; but unstinted and generous provision for the maintenance of free

schools is not extravagance. The rather, it is well considered and thoughtful economy. As truly as "The life is in the blood" so free governments subsist by free schools. Whatever they cost, it is the price which we must inevitably pay for our immunity from the evils of anarchy, or despotism. Free schools supply the intelligence which creates wealth, and (what is more pertinent to the threatened exigencies of the present hour) they must furnish the *power* which defends wealth. The soldier goes cheerfully, and even eagerly, to the task of building the breastworks which are to cover his own person in the impending battle. Such, in our time and country, should be the eagerness of property to be taxed for the rearing of the only bulwark which can effectively shield from actual destruction—the bulwark of free schools.

TEACHERS' INSTITUTES.

It is natural that there should be some difference of opinion amongst teachers concerning the practical value of institutes. Nor is it strange that questions relating to their scope, aim and management should invoke some earnest discussion. Possibly, on the part of some, too much has been expected of the institute; hence, their disappointment at its shortcomings, is only a new demonstration of the axiomatic truth, "There is no royal road to learning." Certainly, the institute cannot take the place of the academic and professional schools. As to length of term, or session, as to appointments and conveniences of place, as to opportunities for earnest study, the institute is a school under very narrow limitations. It is rather a series of lectures, or colloquial addresses, upon such topics as may be adapted to the circumstances and necessities of teachers in our common schools. Of necessity, the best possible institute instruction must be *suggestive* rather than *exhaustive*. It gives the inexperienced teacher, and the teacher whose own educational advantages have been limited, the privilege (nor is it a small privilege) of contact and intercourse, though for a brief period only, with educators who rank high in their calling. Moreover, it brings teachers into helpful acquaintance and sympathy with each other. Nor is it an advantage to be despised. Association inspires healthful emulation and enthusiasm. Yet, the foregoing benefits, *i. e.*, that of a brief intercourse with able and experienced educators, and that of *mutual* intercourse, are imponderable, though far from unreal; and of a character not to be expressed by mere statistics. If, in these particulars which I have stated, the Teachers' Institute has not wholly failed, in my opinion, it needs no other vindication of its right to be continued. However imperfectly, it yet fulfills its aim. And the aim is worthy the effort, and worthy the cost. Its scope may be enlarged, and

its management improved. It is comparatively an easy task to find defects in any method ever yet submitted to trial. It is so with everything. The best methods must be the outgrowth of experience. Hence, healthy changes cannot be swift and radical—a Jonah's gourd. Besides, it is the conductor and his assistants, who will give vitality and effect to the method, whatever it may be. Otherwise, we have a mere machine—it may be as perfect as human ingenuity can make it—a machine without a living and efficient motor. With the assistance of Prof. W. H. Payne, of Ann Arbor, Vice Principal Daniel Putnam, of Ypsilanti, and other eminent teachers, this department has published a new "Manual of Institute Work," which, it is believed, will be found a valuable aid in organizing and conducting institutes. It is gratifying to report that institutes the present year have rallied a large an enthusiastic attendance of teachers and school officers—that their work has been, in the main, satisfactory, and prolific of good. Such are the returns which come to this department from every quarter of the State.

TEMPERANCE TEACHING.

What is the exact *status* of temperance teaching in our public schools? The question is raised because it has been a matter of some inquiry, as well as controversy.

While the duty to provide for special instruction in physiology is made mandatory upon all district boards, there is no special penalty provided for failure to comply with the law. With a view to ascertain to what extent the law was complied with, special efforts were made during the past year to secure reliable information upon this point. The returns from the graded schools are quite complete, but the reports from the district schools are not as satisfactory. The blanks furnished the school directors of the State by this department included the following query: "Is physiology and hygiene taught in your school as provided in section 15, chapter 3, General School Laws of 1885?" Of the 6897 districts in the State 2313 answered "Yes," 1789 answered "No," and 2795 made no report. Among the latter are undoubtedly a number of districts in which the subject is taught, but it is, of course, impossible to form any reliable estimate of the number. The fact that more than 1700 districts report that the subject is not taught indicates a very general disposition on the part of district officers to either ignore the provisions of law, or to deliberately disregard them. The fact that they reply to the query at all is evidence that they are not ignorant of their duties in this regard. To secure a general compliance with this requirement it is evident that a specific penalty should be imposed for non-compliance.

The reports from the graded schools are much more complete and satisfactory. The blanks for special reports of graded schools included this question: "In what grades is physiology and hygiene taught with special reference to the effects of alcohol, etc.?" Reports were received from 248 schools, of which all but 25 included replies to the above question. Seventy-eight report the subject taught in all the grades; 39 report it taught in the grammar and high school grades; 7 in the primary and grammar grades; 2 in the primary and high school departments; 13 in the grammar grade only; 82 in the high school only; 1 in the primary grade only, and one reported the subject not taught.

These statistics show that the subject is taught in over 33 per cent. of all the schools of the State. While this showing is far from meeting the expectations of the friends of the law some encouragement can be derived from the fact that the report for the school year ending September 3, 1883, the year before the statute above quoted went into effect, only 653 districts out of 6336 included physiology in their course of study. In four years this law has resulted in increasing the number of schools affording instruction in this important branch of study from 10 per cent. to 33 per cent.

In my opinion, it is the design of the law to give to this class of studies the same *status* it gives to other practical topics, such as reading, or grammar, *i. e.*, that somewhere in his course, the pupil shall be taught the physiological and moral effects of narcotics and alcoholic stimulants upon the whole being of man. To my mind, this is quite enough. Less would be insufficient; more would be unnecessary, and possibly harmful. It is to be regretted that in any public school the full requirements of the law should suffer neglect; yet, it would be a mistake quite as serious, to give to these special studies a disproportionate, unequal place in the school curriculum—to co-ordinate them, as some extremists insist upon doing, with every other subject from the low zones of a, b, c, up to the high regions of calculus. *Over-teaching* upon a subject which relates to moral conduct, especially, if it concerns the appetites, or passions, is really perilous. Too constant dwelling upon topics of this character has a tendency to invoke morbid conditions in the mind of the youth which either provokes, or fascinates him to attempt dangerous experiments. Were you to teach a boy the flagrant wickedness of burglary it would not be expedient, nor would it be necessary, to induct him into the mysteries of picking a lock. The *specialist* finds a peculiar charm in the ugly spider—he sees a thousand beauties in the bright colors and sinister eyes of a loathsome snake. We may well fear the consequences of making our boys and girls too familiar with nauseating details of any evil we desire them to shun. The teacher or parent cannot be too [illegible]

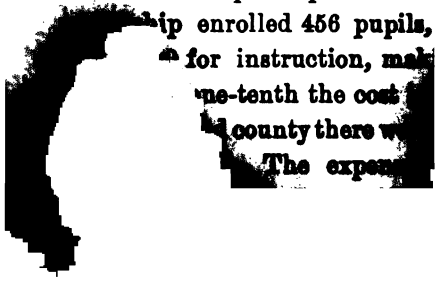
join correct principles, to give warning of penalties, and to himself exhibit a blameless example; which having done, he can effectively add nothing further, except to devoutly leave the result with God.

TOWNSHIP SCHOOL DISTRICTS.

During my brief connection with this department I have become convinced that there exist two radical defects in our present school system, *i. e.* imperfect supervision and too many school districts. These defects have been noted and discussed at length by several of my predecessors, and I am simply falling into line with their views in urging the necessity of some change in these particulars. The argument in favor of consolidating the common school districts in each township is exhaustively presented by Hon. H. R. Gass in the annual report of this department for 1883, and I shall only attempt to emphasize some of the facts presented in support of his advocacy of the proposed change.

The inequality of the cost per capita for instruction incident to the present system is shown in the reports of the township inspectors on file in this office. The following cases are taken at random from the different counties in the State and are not exceptional.

Three districts in Menominee county report a total enrollment of twenty pupils. The average number of months' school maintained in each district was seven and one-third, and the total cost for instruction was $854. The average expense for teaching each of these twenty children for seven and one-third months was $42.70. In the same townships in which these districts are situated are three other districts which reported a total enrollment last year of 670. The average duration of school was nine and two-thirds months and the total cost for instruction was $4,760, or an average per capita cost for instruction for nine and two-thirds months of only $7.10. In other words it cost six times as much to teach each pupil in the first three districts as it did in the last three mentioned. One district in this county reported six pupils enrolled and ten months' school. The amount paid for instruction was $450.00 or a per capita cost of $75.00. An adjoining district in the same



ip enrolled 456 pupils, school ten months and expended
for instruction, ma cost per pupil only $7.12, or
ne-tenth the cost tioned district.
county there w which reported a total enrollment
The expe g these seventeen children five
three other districts with a
cting this number for eight and

two-third months was only $1,022. The average cost in the first three districts was $27.06 for five months, while the average cost for pupils in the last three was only $6.27.

Six districts in Missaukee county enrolled thirty-seven pupils and it cost $1,325 to instruct these children six and one-half months, while one district expended only $336 for instructing forty children nine months.

Instances of a similar character could be cited from nearly every county in the State. Assuming that the districts reporting the least enrollment are the more sparsely settled and the less able to bear the burden of taxation necessary to support the schools, and adding to the cost of instruction the current expenses of the school, cost of buildings, etc., the inequality is most marked.

While the inequality would not be entirely done away with in each instance by placing all the schools of the township under one management, the evil would be lessened very materially, and the school taxes would be equitably distributed over all the territory comprised in the township. Nor is this all. The wages of all the teachers in the township would be more equally adjusted, resulting in supplying the same grade of instructors to all sections of the township.

The adoption of the township district would naturally result in a uniform series of text-books for all the schools of the township. The advantages that would accrue from greater uniformity are self-evident, the only question being to what extent is uniformity desirable? Should it be confined to the district, the township, the county, or should it include the entire State? While I am not favorable to State uniformity and am somewhat in doubt as to the advisability of a county uniformity even, I am satisfied that a uniform series of text-books for all the schools of a township would be of great benefit to the district schools, and would simplify the adoption of county uniformity should it be deemed advisable.

Among the few States retaining the district system are Minnesota and Connecticut. The Superintendents of Public Instruction in both of these States strongly recommend the township system, and the following extracts from their reports on this question will apply to our own State.

Hon. D. L. Keihle, Superintendent of Public Instruction, for Minnesota:

"Noticing the defects of our system more in detail, I call attention to the common school district. This may be known as the neighborhood plan, in which as many families as can conveniently send to one school, have their own officers and school-house, and tax their property for the education of their children. This plan prevails nowhere but in the country, although it is not a whit better adapted to it than to cities. The unwisdom of this plan

would be fairly illustrated if our cities should adopt it, and provide by law that every one, two or three blocks might organize for the support and control of their school affairs by a separate set of officers. If the two cities of St. Paul and Minneapolis should adopt the plan of the country, they would support over 500 schools and over 1,500 school officers; there would be some very rich districts, with excellent schools supported at a trifling cost, and there would be other very poor districts, with few children, poor schools and short terms, maintained at a burdensome expense. And this is the precise condition of things in the country. Some districts are large, rich and thriving; others are poor, sparsely settled, have few children, and can hardly support a four months' school by levying the highest tax allowed by law.

"There is no more reason for having a set of officers for each school in the country than there is for making as many separate districts in a city as there are school buildings. The same rule should govern in the country that govern in cities. As the territory of the municipality is the territory of the school district, so the township should be the school district in the country; and as in the city, a single board provides school privileges as they are needed, so in the township, under one board, school-houses should be located, teachers employed, and all conveniences provided as the distribution of population and the progress of the children require."

Report of the Board of Education of Connecticut, 1886:

"By creating within our towns from ten to twenty little parasitic governments, partially independent in school affairs of one another and of their towns, and by dividing the duties and responsibilities of school administration between town meeting and district meeting, and between school visitors and district committees, we have vitally impaired and paralyzed the self-government of our towns, and have rendered a proper control and management of our schools impossible or at least unlikely. The town is the genuine organic unit of our popular self-government, and we urgently suggest to your honorable body that there be substituted by law, for the present confused and unsound system a simple and well-ordered town management of schools."

I fully appreciate the pernicious results that are apt to follow frequent and radical changes in the school law, and it is, therefore, with no little hesitation that I have ventured to recommend a measure that, if adopted, would practically revolutionize our present school system and require an almost entire revision of the school laws. I am thoroughly satisfied, however, that the ends fully justify the means in this instance, and that the present unsatisfactory condition of the ungraded district schools of the State demand the adoption of any measure that promises better results. Experience of other States [illegible] periority of the township district system, and

the testimony of the Superintendents of Public Instruction of Massachusetts, Illinois, Iowa, Indiana, Ohio, New Hampshire, Pennsylvania, where the civil township is made the school district, is unanimously in its favor.

I would suggest that the law be amended so as to permit the qualified voters of any township to vote to consolidate the several school districts, and place all the schools of the township under the management of a township board of trustees.

TEXT BOOKS.

The adoption of the township system will, in my opinion, open a new way for the speedy adjustment of the difficulties arising out of the diversity and expense of text-books. There can be no question that the variety of the text-books, in use in our public schools, is one of the most fruitful sources of dissatisfaction to the patrons of the schools and a very serious obstacle to securing the best results in school work. This is especially apparent in our ungraded district schools, where frequently the number of text-books on some one subject will equal the number of children enrolled in the school. The disadvantages of such a diversity are too apparent to need any argument. How best to secure some degree of uniformity and at the same time reduce the cost of the text-books to a minimum is a question of great importance to the educational interests of the State.

After thoughtful consideration of the various plans and expedients suggested I am convinced that the solution of the problem lies in the consolidation of the school districts of each township and placing all the schools under the control of a township board of education and having a uniform series of text-books for the township, all such books to be purchased by the township district and loaned to the pupils under such regulations as the board of education may prescribe. The advantages that would naturally follow making the township the unit in school matters are referred to elsewhere in this report. The best argument in favor of free text-books will be found in the universal approval that this plan has received in localities where it has been tried. That the plan has passed the experimental stage is evident from the following opinions regarding its operation from experienced educators in various sections of the country.

Robert Graham, State Superintendent of Wis.:

"The present law authorizes electors of school districts to empower district boards to purchase text-books for use in public schools, to be loaned or furnished pupils under such conditions as may be prescribed by the voters and regulations of the district boards. Very few districts hove voluntarily undertaken to furnish free text-books to pupils. Some cities have done so, and the result has coincided with experience in other States, and proved of great advantage. Attendance has been increases, uniformity of text-

books secured, better classification, and very much reduced aggregate expense, are some of the fruits of this measure, wherever tried."

Superintendent City Schools, LaCrosse, Wis.:

"It does not cost this community one-third the former cost for books. The pupils are on hand promptly at the beginning of the term, and do not have to wait to get books; that is it increases the regularity of attendance. It makes the schools free indeed; puts the poor man's child on an equality with the rich man's child; all are supplied alike. It is an educational force; it teaches the responsibility and care of property."

Superintendent of Schools, New Brunswick, N. J.:

"For the past eighteen years our readers have not cost, on an average per year, more than ten cents per pupil. More than six hundred different girls used the same forty-five reading books. The original cost to the board was less than $45.00, while the retail price during that time was $1.25 per book. The advantages of furnishing books to the pupils by the board are many."

Mr. S. Libby, Orono, Me.:

"During the year 1879 the amount expended for all the books for all the scholars was only $140.29, and yet every scholar attending the school was supplied with all the books he needed, or could use, and the number of different scholars registered was 527. The cost to the town for each scholar was only twenty-six and three-fourth cents for the year. What have we gained by the adoption of this system? I answer: Uniformity of text-books, a satisfactory classification in all our schools and large savings in the cost of books. We have found it the most convenient method, and transfers and exchanges of books are much more easily effected."

Hon. J. W. Dickinson, Secretary State Board of Education, Mass.:

"The law is working well in our commonwealth. The people like it. I have reports from all parts of our State showing that it has increased the attendance, in some cases ten per cent. The new method of supplying books and supplies is cheaper by two-fifths (forty per cent.), than the old. The teachers can now organize at once on the beginning of the school year, and the teachers can make a thorough classification of the pupils. Our schools are now free schools."

Hon. J. W. Akers, State Superintendent, Iowa:

"By authorizing each board of education in the State to purchase books, at first cost, of the publishers or of the booksellers, every argument in favor of uniformity, economy and consistency is fully met. All authorities unite in favor of uniformity in the individual school organization, which is opposed by no one, and is readily secured by the plan of free text-books. The experience of cities, towns, and districts, to the number of many thousand, testifies to the economy of this plan. If the city of LaCrosse, Wis., could furnish all the pupils of her schools with text-books and stationery last year as testified by the city superintendent, at a cost of only twenty-three cents per pupil for the year, why should the neighboring city of Dubuque pay from two to five dollars per pupil for books for the same time? But it is not LaCrosse nor Wisconsin alone that testifies to the fact of the economy of the plan of free text-books. Massachusetts, New Jersey, New York, California, Maine—not the least important States of this union, educationally considered—with a multitude of cities, towns and rural districts, in widely separated localities, and without exception, testify to the economy of the free text-book plan."

East Saginaw is the only city in this State where the pupils of the public schools are furnished text-books and stationery. By special act of the Legislature of 1885, the board of education was given authority to purchase text-books and all necessary supplies for all scholars attending the public schools. The plan has therefore been in operation less than two years. That it has proved satisfactory is shown by the following statement from Mr. C. B. Thomas, city superintendent:

"The free text-book plan was adopted here in June, 1885. It has therefore been in operation about a year and a half. In this time we have pretty nearly completed our plant—*i. e.*, bought a stock of books, slate and lead pencils, pens and pen-holders, writing and drawing books, paper and pads, etc., etc., for two years.

Our total expense for the stock is about $7,000; about $4,500 last year, and $2,500 thus far this year. Suppose we call it in round numbers for the two years $8,000.

Our school enrollment is or will be 4,500. The figures then stand thus:

Amount invested in books, etc	$8,000
Number of pupils supplied	4,500
Cost per pupil	$1.77

Our books after two years' service will be in excellent condition. Even the first readers, in the hands of little children six years of age, after a full year's service, are sound, not much soiled, and good for a year or two more of similar careful usage.

The advantages of the system may be summed up about as follows:

1. A gain of from 25% to 40% on first cost.
2. A gain of at least 33% in the time the book will be usable.
3. I think, taking the last two items together, we make a gain of not far from 50% in cost to community.
4. Classes are uniformly supplied, both as to time and material.
5. No distinction between rich and poor.
6. I am quite confident that about $.50 per scholar will keep the stock good, the children always furnished.
7. To insure care, we fine children who needlessly or maliciously injure books in their hands."

I would suggest that the law be amended so as to empower any district to authorize the purchasing of text-books for use in the schools of the district and am satisfied that wherever tried it will result in an increased attendance, better instruction and cheaper books.

EDUCATIONAL FUNDS.

THE PRIMARY SCHOOL FUNDS.

The moneys derived from the sale of school lands, and from escheats to the State, constitute the Primary School Fund *proper*, and bear seven per cent. interest. One-half the cash avails of the sale of swamp lands are also set apart as a school fund, bearing five per cent. interest, and this is called the Primary School five per cent. fund. The income derived from each of these funds, together with the surplus of specific taxes remaining in the State treasury, after paying the interest on the several educational funds, and the interest and principal of the State debt, forms the Primary School Interest Fund; the entire amount of which, that may be on hand at the time, is apportioned to the school districts of the State semi-annually between the first and tenth days of May and November in each year.

The condition of these funds for the fiscal year ending September 30, 1886, is shown in the following statement:

Primary School 7% fund:		
In the hands of the State	$3,279,047 24	
Due from purchasers of lands	275,118 90	
Total 7% fund		$3,554,166 14
Primary School 5% fund:		
In the hands of the State	$366,645 00	
Total 5% fund		366,645 00
Total school funds		$3,920,811 14

PRIMARY SCHOOL INTEREST FUND.

Interest paid by the State on 7% fund	$226,178 21	
Interest paid by holders of lands, 7% fund	21,512 67	
Total interest on 7% fund		$247,690 88
Interest paid by the State on 5% fund		18,175 93
Total income from both funds		$265,866 81
Surplus of specific taxes transferred		445,408 87
Rent of land		1 00
Paid by trespassers on school lands		45 00
Total Primary School Interest Fund		$711,321 68

THE UNIVERSITY FUND.

This fund is derived from the sale of lands granted to the State by the General Government for the support of a university, and draws interest at seven per cent. The amount to the credit of this fund, September 30, 1886, together with the income derived from the same, is as follows:

In the hands of the State	$502,570 09
Due from purchasers of lands	42,733 09
Total fund	$545,303 18
Interest paid by the State	$34,997 15
Interest paid by holders of lands	3,483 33
Total income	$38,480 48

THE AGRICULTURAL COLLEGE FUND.

This fund, derived from the sale of lands granted by the State and by the General Government for the support of the college, draws seven per cent. interest. The state of the fund at the close of the last fiscal year was as follows:

In the hands of the State	$301,333 58
Due from purchasers of lands	134,234 31
Total fund	$435,567 89
Interest paid by the State	$20,571 65
Interest paid by holders of lands	10,175 29
Total income	$30,746 94

THE NORMAL SCHOOL FUND.

This fund, bearing six per cent. interest, is derived from the sale of salt spring lands, granted by the State for the support of a normal school. The condition of this fund and its income at the close of the fiscal year was as follows:

In the hands of the State	$62,338 56
Due from purchasers of lands	6,787 48
Total fund	$69,126 04
Interest paid by the State	$3,722 53
Interest paid by holders of lands	538 06
Total income	$4,260 59

STATE EDUCATIONAL INSTITUTIONS.

THE UNIVERSITY.

The University of Michigan has nearly completed the first half century of its existence, and during the coming year will be celebrated its semi-centennial. And what a marvellous history will this event most fitly commemorate! From a few schools located in different parts of the State, each embracing a course of study which is now surpassed by many of our high schools, it has grown to the full stature of a University in the most comprehensive sense of the word. In the comparatively brief period of fifty years it has accumulated property to the value of nearly $1,000,000. In addition to the various courses of study offered in the literary department special schools have been established in law, medicine, chemistry, dentistry, civil and mining engineering and mechanics. Its several faculties aggregate more than ninety instructors. More than fifteen hundred students from all parts of the world are enrolled in the different departments, while the number of graduates exceeds eight thousand. The several libraries include 70,000 volumes. The museums of natural history, archæology and ethnology, fine arts and history, anatomy and *materia medica*, and the industrial arts are all very complete. The various laboratories are finely equipped with apparatus and material for practical illustration. More than a score of men and women who have been connected with the University as instructors or students have attained to high rank in science, literature and politics. In his address at the celebration of the semi-centennial of the admission of Michigan to the Union, President Angell sums up a brief but comprehensive sketch of the development of the University in the following eloquent words: "I have thus given a rapid and brief sketch of the origin and development of the University. Its growth is, we may confidently say, without a parallel in the history of American Universities. Its name is spoken with honor wherever American scholarship is known. It has long had in its faculties professors whose fame has circled the globe. It has done its full part in making the name and fame of Michigan familiar to the world. And looking back to-day on the proud history of the State, shall we say that the fathers erred in laying deep and broad the foundations of the University? Does not rather their work stand as a monument to their wisdom and foresight? They not only secured, almost without cost, a generous education for their own children, but they saved at least three generations of educated men to Michigan. They made certain, at an early day, the collection of museums and libraries, which could, probably, not have been gathered in a century through private generosity. Nor can it be ques-

tioned that the University has exerted a most powerful, elevating and stimulating influence upon the public schools, and especially upon the high schools of the State. It has attracted a large number of men of high intelligence and character from other States who, after completing their studies, have remained to strengthen and enrich this State with useful lives. The power and influence of the University have been felt throughout the length and breadth of the State, nay, throughout the whole nation and in many a foreign land."

During the past year the University has prospered in all its departments. The total attendance reached 1,401, an increase over the preceding year of 106, the increase being chiefly in the literary department. The number of graduates in the several departments was 366, an increase of 3 over the preceding year.

The course of instruction in the law school has been graded and hereafter text-book work will supplement the lectures. This change will insure more thorough training and is in harmony with the general policy of the Board of Regents to constantly advance the qualifications for graduation in all departments.

The annual report of President Angell, included in the documentary part of this volume, contains a detailed statement of the present condition and needs of the University. The institution has attained such a magnitude that the annual resources fall far short of meeting the current expenses, while the necessity of funds for special purposes was never more pressing than at present. The recent valuable contributions to the art collection have created a demand for a suitable building for their safe keeping and proper exhibition. It seems to me a matter of great importance that these collections, aggregating in value several hundred thousand dollars, should be protected from damage, and it is earnestly to be hoped that the Legislature will take prompt action in this matter. No doubt if the State would furnish a suitable building where valuable works of art could be safely deposited, the disposition to give to the University, which has been so marked in the past few years, would be greatly stimulated. Certainly the State has been amply compensated for all the aid given the University in the past, and I am confident the requests of the Board of Regents will receive the same liberal treatment from the State that has always been accorded them.

THE NORMAL SCHOOL.

The vacancy in the principalship of the Normal School caused by the resignation of Principal Willits, and which was temporarily filled by Professor Daniel Putnam, has been permanently supplied by the appointment of Supt.

J. M. B. Sill. Principal Sill was a member of the first class that graduated from the Normal, was afterward a member of the faculty, and has been continuously engaged in educational work since his graduation. He has long been recognized as one of the leading educators of the State, and his successful administration of the office of superintendent of the Detroit city schools gives assurance of the possession of executive ability so essential to the management of a large educational institution.

Principal Sill entered upon his duties under very favorable auspices. Under the wise management of acting Principal Putnam the attendance had increased until it exceeded any previous year in the history of the school. Perfect harmony existed between the individual members of the faculty, and the relations between the instructors and students was uniformly pleasant. The continued growth and prosperity of the school, under these conditions, would seem to be an assured fact.

During the past year the attendance in the normal department reached 628, an increase of 108 over the preceding year. The faculty numbered 24, and 87 were graduated at the last commencement.

The present accommodations are entirely inadequate for so large an attendance, and the necessity for enlarged quarters which was so strongly urged by Principal Willits in his last report, is made still more pressing by the large increase in the number of students. The matter demands prompt action or the board will be compelled to restrict the attendance.

The course in music has been extended to afford instruction in choral singing and in instrumental music. This has resulted in an increased attendance at the conservatory of music, the enrollment reaching 123 during the year.

No changes of any importance have been made in the courses of study or methods employed. Good, faithful work has been done by the students, and an earnest desire to make the best use of the opportunities offered has characterized all.

The reports of the State Board of Education and the acting principal furnish detailed statements of the courses of study, members of the faculty, and matters of general interest to friends of the school.

THE AGRICULTURAL COLLEGE.

The report of the secretary of the State Board of Agriculture, included in the appendix to this volume, contains many interesting facts relating to this institution not generally understood by the public. The permanent endowment fund of the college derived from the sale of lands granted by the general government, has already reached that point where the income is sufficient to meet the entire current expenses. Practically, the college is self-

supporting, and the State is called upon to furnish only such funds as are needed to increase the accommodations for students and the facilities for instruction demanded by the largely increased attendance. The enrollment during the year was 296, exceeding that of the preceding year by 123, an increase of nearly 60%. As a result the buildings are overcrowded, and it has taxed the ingenuity of the authorities to accommodate so large a number in such limited quarters. The coming year will undoubtedly witness a still larger increase in attendance, and as the board is restricted by the terms of the grant from using any of the permanent fund for building purposes, the Legislature must make some provision to meet this rapid growth.

The department of Mechanic Arts, established in 1885, is attracting many students to the college, and the building devoted to instruction in this course is already crowded beyond its capacity; more room and additional tools and machinery are needed to meet the increased demand. The wisdom of the Legislature in providing for the establishment of this department has been fully vindicated by the results already attained, and its importance and usefulness will be limited only by the means at the disposal of the board for its necessary enlargement and equipment.

During the year eleven bulletins have been issued by members of the faculty under the law passed at the last session of the Legislature providing for the publication of the results of experiments tried in the various departments. All of these documents have been of practical value to the agricultural and horticultural interests of the State.

The record of the past year has amply demonstrated the wisdom of the action of the State Board of Agriculture in appointing Hon. Edwin Willits to the presidency. The attendance has been larger than ever before, and in every respect the college has prospered and grown.

But few changes have been made in the corps of instructors. Mr. H. R. Pattengill has been appointed Assistant Professor of English, and Mr. Joseph B. Cotton, Instructor in Mathematics. The rapid growth in attendance will necessitate increased teaching force, many of the classes being already too large to admit of the best results in class work. The courses of study are practically the same as given in the last report.

STATE REFORMATORY AND CHARITABLE INSTITUTIONS.

SCHOOL FOR THE BLIND.

The number of this unfortunate class who receive the advantages afforded by this school increases annually, though there are undoubtedly many more scattered throughout the State who for various reasons are being denied this privilege. One who has not visited this institution can have no conception of the opportunities that are afforded to this, perhaps the most unfortunate of the defective classes. for acquiring a good common school education, supplemented by a valuable apprenticeship in some manual trade that will enable them to become self-dependent. During the past year a kindergarten class was established which has proved to be a very important auxiliary both in intellectual and manual instruction. Modeling in clay, paper folding and weaving, etching on card board and perforated paper, braiding and splicing cords and other devices have been employed with excellent results in producing that delicacy of touch that is so essential to successful instruction of the blind.

Four teachers are employed in the literary department besides two music teachers, a sewing teacher and a teacher of broom-making. A class in piano tuning has been organized and promises to open up an important field of occupation to pupils of the school. The attendance during the year was 83. Some interesting facts in relation to this school, taken from the report of the superintendent, are included in the accompanying documents.

THE INDUSTRIAL HOME FOR GIRLS.

at Adrian is doing good work in the direction of reforming girls and young women who from vicious surroundings, or lack of proper home influences and training have drifted into evil ways. The plan of the school precludes any graded system of school work, the girls remaining there only until suitable places are found for them in families or at some kind of reputable employment where they will be removed from the temptations that would retard their reformation. Instruction is given in the common school branches, and the girls, as a rule, are interested in their studies and evince a fair degree of proficiency considering the very general lack of previous mental training. The school is managed on the cottage plan, the inmates being classed on the basis of good conduct. The work in each of the cottages is done by the girls under the supervision of a competent housekeeper. They make and mend all their garments, and do much of the lighter out-door work. The fact that con-

stant employment is the best safeguard against evil doing is continually emphasized, and the time is fully occupied in school work or in domestic labor.

The whole number of different persons received during the year was 258, of which number 187 were in the Home at the close of the year. The average age at entering was fourteen years. Since the opening of the institution in 1881, one hundred and eighteen girls have been placed in homes, of whom only seventeen have been returned as still vicious. This showing is certainly very favorable for the school and speaks well for the excellence of its management.

STATE PUBLIC SCHOOL FOR DEPENDENT CHILDREN.

The facilities for school work at this institution have been greatly improved during the year. The large double cottage has been remodeled and is now entirely devoted to school purposes. This change afforded four large, well lighted and ventilated school rooms, admitting of much better results in school work. A large room on the first floor has been assigned to the kindergarten department, which was established the year previous, and which has proved to be one of the most useful and attractive features of the school. Referring to this department, Supt. Foster says; "It has been a most useful adjunct to the schools, and its results have been better than I even dared to hope. It has done much, by interesting mechanical work, to enliven dormant powers, and to bring into activity mental resources of children who were considered of doubtful ability. It has thus, possibly, saved from a poor-house life one or two children who, without this awakening process, would have been probably considered feeble-minded. While it brightens and awakens sleeping intellects, it does much for the already bright ones. It furnishes pleasing occupation for willing fingers and saves them from getting into mischief. At a time in life easily influenced, impressions for good are made which will be lasting."

The other departments are better supplied than ever before with improved appliances for teaching, and though the children remain in the institution too short a time to admit of a systematic course of instruction, the habit of study is formed that is developed in the public schools after they leave the institution. The further education of the children is provided for in the conditions of indenture which provide that each child indentured shall be sent to the public schools at least four months each year, until eighteen years of age or longer.

This school continues to be regarded as the model institution of its kind,

as it was the first established, and other States are organizing similar institutions, following closely the system adopted here.

DENOMINATIONAL SCHOOLS.

The following colleges, or schools of higher learning, are under the auspices of the different christian denominations, *i. e.*, Adrian, Albion, Alma, Battle Creek, Detroit, Hillsdale, Hope, Kalamazoo and Olivet. The above named schools, unlike our State institutions, are sustained by voluntary patronage. However, they are incorporated by the State under a general statute, and are, at least nominally, subject to the visitorial jurisdiction of the department of Public Instruction. These denominational colleges are sometimes called "sectarian." It is only just to say that the epithet is wholly undeserved. To one who is a stranger to their aims and spirit the epithet is very misleading—a false definition—in fact, a libel. It conveys the notion that these educational institutions exist for the diffusion of sectarian ideas, dogmas and influences—in a word, that they are narrow partisan schools. This notion is no more injurious than unjust, and really impeaches the intelligence or else the fairness of the person who entertains it. It has been historically demonstrated that it is the very genius of the Christian religion to educate. Not to educate in the mere dogmas of the church, but to educate in every field of literature, science, art and history. The Christian religion proceeds upon the sound axiom that the truth, whatever it may be, will bear the light —even "the fierce light which beats against a throne." Learning gets its profoundest inspiration from Christianity, and the most renowned and influential schools of learning in christendom have had their origin and up-building from this one prolific source. It requires only a superficial acquaintance with the historical relations of the Christian religion to the cause of general education to find a noble, and not mean, a catholic, and not "sectarian," reason for the existence of the Christian colleges of our commonwealth. It is natural and just that in the proportion that a religious denomination contributes to the cause of general education, it adds to its own intelligence, numbers and influence. The principle of compensation which obtains everywhere—a wise and beneficent law, governing all communities and individuals —works this practical equity.

It is true, also, that one's peculiar religious beliefs are, to some extent, determined by his social environments. This, too, is a wholesome law, and every school worthy of confidence makes it available as a moral safeguard to the youth committed to its training. But, further than the social atmosphere which it legitimately invokes or creates—a mild and wholesome influ-

ence—it is impossible to engraft "sectarianism" upon a college. In the same sense that it behooves an enlightened nation to comply with established doctrines of international law, it is necessary for a school of higher learning, under any auspices, to observe with scrupulous fidelity the traditions, courtesies and amities which prevail in the great republic of letters. These are eminently cosmopolitan and catholic as respects both nationality and creed. They enjoin absolute freedom of conscience, and, within decent conventionalities, unrestrained liberty of speech and conduct. The reproach of "sectarianism" so often laid at the door of denominational colleges is, then, clearly absurd as well as unjust. Is Harvard sectarian? or Yale? or Princeton? or Brown? Or, is it only in the days of its weakness that men seek to fasten this stigma upon every school of learning under the auspices, or patronage, of a religious communion?

But it is further objected that the denominational colleges of our State are superfluous—that there is no real necessity for their existence—that the University of Michigan, and other State schools, are qualified to supply the whole demand for higher education amongst the youth of our commonwealth. It scarcely needs to be pointed out that, whatever the force of this objection at an earlier period in our history as a State, it is now *untimely*. These denominational colleges already exist. They have demonstrated their right to be by the extent and quality of their work. Each one of them has a local habitation and vested interests, and, is so identified with the community where it is established, that it could not be removed, nor discontinued, without misapplication of designated funds, and a serious breach of trust. The real question is, whether more than a million dollars devoted to the cause of education shall be abandoned, and actually lost to such noble uses, or whether this great, and increasing, sum shall be continued in the work to which it is now dedicated? There is still a further question, naturally suggested in this connection. It is this: Whether, under the forms of popular government, it is possible to obtain by taxation the resources adequate to the maximum efficiency of a university, or college? It is not unreasonable to expect that private benefactions will yet supply the deficiencies of State aid in the future growth, the progressive, exalted career of the University of Michigan.

However, the objection touching the superfluousness of the denominational colleges is best examined in the light of this truth, *i. e.*, every school of higher learning helps to create the demand which it helps also to supply. The work of creating a demand is quite as necessary and noble as that of supplying it. This is a point which might be amply sustained and illustrated by facts within the sphere of my own observation and knowledge. It is a great achievement to carry the learning of a few individuals, who desire to

pursue it, to the highest attainable summit; but, for the practical good of mankind, and especially for the good of the State, it is a greater achievement to diffuse learning over the widest possible area and amongst the largest number of individuals. Many scores of young men and women have been rescued from a condition of illiteracy and started upon an intelligent and useful career by the proximity and influence of the small denominational colleges located in different parts of our State. If we may forecast for our noble State Institutions a future of growth and efficiency answering to the fondest dream of their most enlightened friends, there will still be room for our denominational colleges to fulfill a great and noble mission in the service of the commonwealth and of mankind.

CONCLUSION.

In closing this report, I desire to make grateful acknowledgments to the teachers of Michigan for their uniform coöperation and kindness. They are an intelligent body of men and women—self-devoted in their noble work. They are rendering a great and patriotic service to our beloved commonwealth. In retiring from an office, whose duties and responsibilities, though imperfectly performed, have been keenly appreciated, I think it proper as well as just to mention my great obligation to Mr. William F. Clarke, the able and efficient Deputy Superintendent of Public Instruction. He is a conscientious, painstaking and intelligent officer—a trustworthy and devoted friend. I am, also, greatly indebted to Mr. Bayard T. Brown, chief clerk, for many thoughtful attentions to myself personally, and for the faithful discharge of every official duty. In fact, I have been exceptionally well served by the whole official force, and take this occasion to present to each individually my heartfelt thanks.

Very respectfully,

THEODORE NELSON,

Superintendent of Public Instruction.

STATISTICAL TABLES.

TABLE I.

Comparative Summary of Statistics for the Years 1885 and 1886.

Items.	1885.	1886.	Increase.	Decrease.
Districts and Schools.				
Number of townships and independent districts reporting	1,186	1,199	13	
Number of graded school districts	440	443	3	
Number of ungraded school districts	6,492	6,529	37	
Total	6,932	6,972	40	
School census of graded school districts	279,970	285,653	5,683	
School census of ungraded school districts	315,782	318,114	2,332	
Total	595,752	603,767	8,015	
Enrollment in graded schools	179,004	181,759	2,755	
Enrollment in ungraded schools	232,950	234,891	1,941	
Total	411,954	416,650	4,696	
Percentage of attendance in graded schools	63.9	63.6		.3
Percentage of attendance in ungraded schools	73.8	73.8		
Percentage for the State	69.2	69.		.2
Number of districts reporting having maintained school	6,880	6,906	26	
Average duration of schools in months in graded schools	9.5	9.4		.1
Average duration of schools in months in ungraded schools	7.4	8.1	.7	
Average for the State	7.1	7.2	.1	
Number of private and select schools reported	303	305	2	
Number of men teachers in such schools	262	286	24	
Number of women teachers in such schools	452	441		11
Estimated number of pupils attending such schools	30,458	29,501		957

TABLE I.—*Continued.*

Items.	1885.	1886.	Increase.	Decrease.
Teachers and their Employment.				
Number of teachers necessary to supply graded schools	3,127	3,273	146	
Number of teachers necessary to supply ungraded schools	6,494	6,511	17	
Total	9,621	9,784	163	
Number of men teachers employed in graded schools	597	601	4	
Number of men teachers employed in ungraded schools	3,279	3,333	54	
Total	3,876	3,934	58	
Number of women teachers employed in graded schools	2,809	2,866	57	
Number of women teachers employed in ungraded schools	8,673	8,520		153
Total	11,482	11,386		96
Whole number of teachers employed in graded schools	3,406	3,467	61	
Whole number of teachers employed in ungraded schools	11,952	11,853		99
Total	15,358	15,320		38
Average number of months taught by men in graded schools	7.5	8.8	1.3	
Average number of months taught by men in ungraded schools	4.6	4.6		
General average	5.1	5.3	.2	
Average number of months taught by women in graded schools	9.1	9.4	.3	
Average number of months taught by women in ungraded schools	4.	4.		
General average	5.2	5.4	.2	
Total wages of male teachers in graded schools	$406,529 73	$407,137 04	$607 31	
Total wages of male teachers in ungraded schools	506,824 79	524,376 93	17,552 14	
Total	$913,354 52	$931,513 97	$18,159 45	

TABLE I.—*Continued.*

Items.	1885.	1886.	Increase.	Decrease.
Total wages of female teachers in graded schools	$1,000,414 09	$1,032,919 93	$32,505 84	.....
Total wages of female teachers in ungraded schools	871,511 55	877,478 28	5,966 73	.....
Total	$1,871,925 64	$1,910,398 21	$38,472 57	.....
Aggregate wages of all teachers in graded schools	$1,406,943 82	$1,440,056 97	$33,113 15	.....
Aggregate wages of all teachers in ungraded schools	1,378,336 34	1,401,855 21	23,518 87	.....
Total	$2,785,280 16	$2,841,912 18	$56,632 02	.....
Average wages of male teachers in graded schools	$77 83	$76 73	.....	$1 10
Average wages of male teachers in ungraded schools	34 79	34 06	.....	73
Average wages of male teachers in all schools	$46 17	$45 00	.....	$1 17
Average wages of female teachers in graded schools	$38 90	$38 40	.....	$0 50
Average wages of female teachers in ungraded schools	25 34	25 49	$0 15	.....
Average wages of female teachers in all the schools	$31 18	$31 16	.....	$0 02
*Examination and Certification of Teachers.**				
Number of public examinations held	470	449	.....	21
Number of applicants for regular certificates	13,735	15,114	1,379	.....
Number of first grade certificates granted	120	193	73	.....
Number of second grade certificates granted	504	512	8	.....
Number of third grade certificates granted	9,016	9,322	306	.....
Whole number of regular certificates granted	9,640	10,029	387	.....
Number of applicants for special certificates	2,024	1,854	.....	170
Number of special certificates granted	1,873	1,573	.....	300
Number teaching who held State or Normal School certificates	289	288	.....	1
Whole number of legally qualified teachers	10,517	11,122	605	.....
Number licensed without previous experience in teaching	2,178	2,394	216	.....
Number of applicants who had attended State Normal School	3,231	3,484	253	.....

* No reports received from Clare, Delta and Hillsdale counties.

TABLE I.—*Continued.*

Items.	1885.	1886.	Increase.	Decrease.
Number of applicants who had attended Institutes during the year	5,613	5,543	.....	70
School Property.				
Number of frame school houses	5,574	5,647	73	.....
Number of brick school houses	1,031	1,063	32	.....
Number of stone school houses	74	72	.....	2
Number of log school houses	485	453	.....	32
Total	7,164	7,235	71	.....
Whole number of sittings in school houses	512,659	518,816	6,157	.....
Estimated value of property in graded school districts	$7,242,286 00	$7,725,050 00	$482,764 00	.....
Estimated value of property in ungraded school districts	4,024,770 00	4,125,596 00	100,826 00	.....
Total	$11,267,056 00	$11,850,646 00	$583,590 00	.....
Number of districts reporting dictionaries in school	3,113	3,323	210	.....
Number of districts reporting globes in school	1,496	1,654	158	.....
Number of districts reporting maps in school	1,844	2,036	192	.....
Financial.				
Balance on hand from preceding year	$1,012,722 44	$959,149 34	.....	$53,573 10
Amount of one mill tax received	679,279 75	640,141 50	.....	39,138 25
Amount of primary school interest fund received	705,663 84	762,209 02	$56,545 18	.....
Amount received from non-resident tuition	50,023 72	52,092 51	2,068 79	.....
Amount received from district taxes	2,700,030 23	2,738,078 59	36,048 36	.....
Amount received from all other sources	555,692 97	542,566 37	.....	13,126 60
Total resources	$5,703,412 95	$5,692,237 33	.....	$11,175 62
Amount paid male teachers	$913,430 70	$931,885 26	$18,454 56	.....
Amount paid female teachers	1,870,892 84	1,909,258 53	38,365 69	.....
Amount paid for building and repairs	695,502 50	632,942 71	.....	$62,559 79
Amount paid on bonded indebtedness	377,804 29	358,484 12	.....	19,320 17
Amount paid for all other purposes	871,310 21	858,382 97	.....	12,927 24
Balance carried to next year	974,472 41	1,001,283 74	26,811 33	.....
Total expenditures, including balance on hand	$5,703,412 95	$5,692,237 33	.....	$11,175 62

TABLE I.—*Continued.*

Items.	1885.	1886.	Increase.	Decrease.
Total expenditures in graded school districts.	$2,726,350 58	$2,693,203 36	.....	$33,147 22
Total expenditures in ungraded school districts	2,002,589 96	1,997,750 23	.....	4,839 73
Total net expenditures	$4,728,940 54	$4,690,953 59	.....	$37,986 95
Total bonded indebtedness of districts	$1,469,873 42	$1,460,169 01	.....	$9,704 41
Total floating indebtedness of districts	120,661 45	141,140 29	$20,478 84	.....
Total indebtedness	$1,590,534 87	$1,601,309 30	$10,774 43	.....
Total indebtedness in graded school districts	$1,238,939 31	$1,283,152 84	$44,213 53	.....
Total indebtedness in ungraded school districts	351,595 56	318,156 46	.....	$33,439 10
Total indebtedness	$1,590,534 87	$1,601,309 30	$10,774 43	.....
Total amount due the districts	$154,550 87	$148,475 22	.....	$6,075 65
School Libraries.				
Number of townships maintaining libraries	537	505	.....	32
Number of districts of 100 children or more maintaining libraries	294	295	1	.....
Number of districts of less than 100 children maintaining libraries	933	883	.....	50
Total number of libraries	1,764	1,683	.....	81
Number of volumes in township libraries	109,627	123,552	13,925	.....
Number of volumes in districts of 100 or more children	211,841	223,358	11,517	.....
Number of volumes in districts of less than 100 children	50,201	48,969	.....	1,232
Total number of volumes in all the libraries	371,669	395,879	24,210	.....
Amount of taxes voted for township libraries	$4,255 87	$4,524 20	$268 33	.....
Amount received from county treasurers for township libraries	11,263 17	9,296 95	.....	$1,966 22
Amount received from county treasurers for district libraries	16,804 98	20,981 89	4,176 91	.....
Number of townships diverting moneys to general school purposes	463	449	.....	14
Number of townships forfeiting library moneys	250	237	.....	13
Amount paid for support of township libraries	$14,836 86	$16,263 39	$1,426 53	.....
Amount paid for support of district libraries	33,419 92	37,865 75	4,445 83	.....

TABLE I.—*Continued.*

Items.	1885.	1886.	Increase.	Decrease.
Teachers' Institutes.				
Number of State institutes held	74	71	.....	3
Number of men enrolled at such institutes	1,933	1,915	.....	18
Number of women enrolled at such institutes	5,157	5,017	.....	140
Total enrollment	7,090	6,932	.....	158
Amount received from State treasurer for such institutes	$1,790 20	$1,758 53	.....	$31 67
Amount received from county treasurers for such institutes	9,415 39	8,373 01	.....	1,042 38
Total amount expended	$11,205 59	$10,131 54	.....	$1,074 05
Miscellaneous.				
Number of counties reporting county teachers' associations	35	43	8	.....
Number of visits to schools by secretaries of county boards	613	497	.....	116
Number of visits to schools by other members of county boards	263	228	.....	35
Total number of visits	876	725	.....	151
Amount of per diem received by examiners	$13,132 32	$13,449 50	$317 18	.....
Amount paid secretaries of county boards for services	13,546 00	12,881 50	.....	$664 50
Amount received by secretaries of county boards for special certificates	1,181 75	1,242 65	60 90	.....
Total compensation	$27,860 07	$27,573 65	.....	$286 42
Amount allowed by supervisors for expenses of county boards	$1,321 13	$1,534 05	$212 92	.....
Amount paid and due township inspectors for services	19,114 94	22,475 33	3,360 39	.....
Amount paid chairmen of boards of inspectors	27,650 59	34,920 95	7,270 36	.....

TABLE II.

Semi-Annual Apportionment of the Primary School Interest Fund, made May 7, 1886; Rate Per Capita, 64 Cents.

Counties.	Whole number of children.	Number included in apportionment.	Amount apportioned.
State	595,752	593,143	$380,093 68
Alcona	1,194	1,194	$764 16
Alger	195	165	105 60
Allegan	12,629	12,561	8,039 04
Alpena	3,864	3,864	2,472 96
Antrim	2,953	2,944	a 1,895 92
Arenac	1,222	1,222	782 08
Baraga	833	833	533 12
Barry	7,906	7,906	5,059 84
Bay	14,756	14,715	9,417 60
Benzie	1,493	1,493	955 52
Berrien	12,128	12,098	7,742 72
Branch	7,988	7,915	5,065 60
Calhoun	11,884	11,884	7,605 76
Cass	6,312	6,281	4,019 84
Charlevoix	2,974	2,963	1,896 32
Cheboygan	3,201	3,170	b 2,028 80
Chippewa	2,543	2,473	1,759 12
Clare	1,542	1,532	980 48
Clinton	8,836	8,836	5,655 04
Crawford	614	614	392 96
Delta	2,448	2,344	1,500 16
Eaton	9,516	9,516	6,090 24
Emmet	2,569	2,542	1,626 88
Genesee	11,981	11,931	7,635 84
Gladwin	509	509	325 76
Grand Traverse	3,706	3,672	2,350 08
Gratiot	8,343	8,343	c 5,549 28
Hillsdale	9,362	9,352	5,985 28

a Including $11.76 deficiency for 1885.
b Including $176.48 deficiency for 1885.
c Including $209.71 deficiency for 1885.

TABLE II.—*Continued.*

Counties.	Whole number of children.	Number included in apportionment.	Amount apportioned.
Houghton	9,256	9,256	$5,923 84
Huron	9,516	9,474	6,063 36
Ingham	10,747	10,747	6,878 08
Ionia	9,846	9,846	6,301 44
Iosco	3,088	3,088	1,976 32
Iron			
Isabella	5,412	5,319	3,404 16
Isle Royal			
Jackson	12,848	12,774	8,175 36
Kalamazoo	10,305	10,305	6,595 20
Kalkaska	1,525	1,520	972 80
Kent	25,982	25,967	16,618 88
Keweenaw	1,309	1,309	837 76
Lake	1,910	1,870	1,196 80
Lapeer	10,130	10,087	6,455 68
Leelanaw	2,504	2,432	1,556 48
Lenawee	14,152	14,152	9,057 28
Livingston	6,470	6,470	4,140 80
Mackinac	1,557	1,460	934 40
Macomb	10,966	10,966	7,018 24
Manistee	6,140	6,140	3,929 60
Manitou	524	524	335 36
Marquette	9,468	9,468	6,059 52
Mason	4,033	3,985	2,550 40
Mecosta	6,414	6,346	4,061 44
Menominee	4,991	4,899	3,135 36
Midland	3,140	3,129	2,002 56
Missaukee	833	814	520 96
Monroe	11,888	11,838	7,576 32
Montcalm	10,969	10,763	6,888 32
Montmorency	294	293	187 52
Muskegon	11,718	11,675	7,472 00
Newaygo	5,795	5,795	3,708 80
Oakland	11,548	11,413	7,304 32
Oceana	4,740	4,740	3,033 60
Ogemaw	1,133	1,133	725 12
Ontonagon	1,077	1,072	6,086 08

TABLE II.—*Continued.*

Counties.	Whole number of children.	Number included in apportionment.	Amount apportioned.
Osceola	4,779	4,702	$3,009 28
Oscoda	413	384	245 76
Otsego	1,194	1,163	744 32
Ottawa	12,796	12,702	8,129 28
Presque Isle	1,348	1,325	a 932 29
Roscommon	403	403	257 92
Saginaw	23,272	23,215	14,857 60
St. Clair	17,312	17,312	11,079 68
St. Joseph	7,806	7,791	4,986 24
Sanilac	11,796	11,796	7,549 44
Schoolcraft	716	659	421 76
Shiawassee	8,960	8,960	5,734 40
Tuscola	10,434	10,335	6,614 40
Van Buren	9,444	9,343	5,979 52
Washtenaw	13,189	13,031	8,339 84
Wayne	73,084	72,919	46,668 16
Wexford	3,177	3,162	2,023 68

a Including $84.29 deficiency for 1885.

TABLE III.

Semi-Annual Apportionment of the Primary School Interest Fund, made November 8th, 1886; Rate Per Capita, 56 Cents.

Counties.	Whole number of children.	Number included in apportionment.	Amount apportioned.
State	595,806	598,523	$332,616 08
Alcona	1,194	1,194	$668 64
Alger	195	165	92 40
Allegan	12,629	12,561	7,034 16
Alpena	3,864	3,864	2,163 84
Antrim	2,953	2,944	1,648 64
Arenac	1,222	1,222	684 32
Baraga	833	833	466 48
Barry	7,906	7,906	4,427 36
Bay	14,756	14,715	8,240 40
Benzie	1,493	1,493	836 08
Berrien	12,128	12,098	6,774 88
Branch	7,988	7,968	[a] 4,496 00
Calhoun	11,884	11,884	6,655 04
Cass	6,312	6,281	3,517 36
Charlevoix	2,974	2,963	1,659 28
Cheboygan	3,201	3,170	1,775 20
Chippewa	2,543	2,473	1,384 88
Clare	1,542	1,532	857 92
Clinton	8,836	8,836	4,948 16
Crawford	614	614	343 84
Delta	2,448	2,344	1,312 64
Eaton	9,516	9,516	5,328 96
Emmet	2,569	2,542	1,423 52
Genesee	11,931	11,931	6,681 36
Gladwin	509	509	285 04
Grand Traverse	3,706	3,672	2,056 32
Gratiot	8,367	8,367	[b] 4,700 88
Hillsdale	9,362	9,352	5,237 12

[a] Includes $33.92 deficiency May apportionment, 1886.
[b] Includes $15.36 deficiency May apportionment, 1886.

TABLE III.—*Continued.*

Counties.	Whole number of children.	Number included in apportionment.	Amount apportioned.
Houghton	9,256	9,256	$5,183 36
Huron	9,516	9,474	5,305 44
Ingham	10,747	10,747	6,018 32
Ionia	9,846	9,846	5,513 76
Iosco	3,088	3,088	1,729 28
Iron			
Isabella	5,412	5,319	2,978 64
Isle Royal			
Jackson	12,848	12,848	[a] 7,242 64
Kalamazoo	10,305	10,305	5,770 80
Kalkaska	1,525	1,520	851 20
Kent	25,962	25,967	14,541 52
Keweenaw	1,309	1,309	733 04
Lake	1,910	1,870	1,047 20
Lapeer	10,130	10,067	5,648 72
Leelanaw	2,504	2,432	1,361 92
Lenawee	14,152	14,152	7,925 12
Livingston	6,470	6,470	3,623 20
Mackinac	1,557	1,460	817 60
Macomb	10,966	10,966	6,140 96
Manistee	6,140	6,140	3,438 40
Manitou	524	524	293 44
Marquette	9,468	9,468	5,302 08
Mason	4,033	3,985	2,231 60
Mecosta	6,414	6,383	[b] 3,598 16
Menominee	4,991	4,899	2,743 44
Midland	3,140	3,129	1,752 24
Missaukee	833	814	455 84
Monroe	11,888	11,838	6,629 28
Montcalm	10,969	10,763	6,027 28
Montmorency	294	293	164 08
Muskegon	11,718	11,710	[c] 6,580 00
Newaygo	5,795	5,795	[c] 3,245 20
Oakland	11,548	11,446	[d] 6,430 88
Oceana	4,740	4,740	2,654 40
Ogemaw	1,133	1,133	634 48

[a] Includes $47.36 deficiency May apportionment, 1886.
[b] Includes $23.68 deficiency May apportionment, 1886.
[c] Includes $22.40 deficiency May apportionment, 1886.
[d] Includes $21.12 deficiency May apportionment, 1886.

TABLE III.—*Continued.*

Counties.	Whole number of children.	Number included in apportionment.	Amount apportioned.
Ontonagon	1,077	1,072	$600 32
Osceola	4,779	4,702	2,633 12
Oscoda	413	384	215 04
Otsego	1,194	1,163	651 28
Ottawa	12,796	12,796	[a] 7,225 92
Presque Isle	1,348	1,325	742 00
Roscommon	403	403	225 68
Saginaw	23,302	23,245	[b] 13,036 40
St. Clair	17,312	17,312	9,694 72
St. Joseph	7,806	7,791	4,362 96
Sanilac	11,796	11,796	6,605 76
Schoolcraft	716	659	369 04
Shiawassee	8,960	8,960	5,017 60
Tuscola	10,434	10,355	5,797 60
Van Buren	9,444	9,343	5,232 08
Washtenaw	13,189	13,031	7,297 36
Wayne	73,034	72,919	40,834 64
Wexford	3,177	3,162	1,770 72

[a] Includes $30.16 deficiency May apportionment, 1886.

[b] Includes $19.20 deficiency May apportionment, 1886.

TABLE IV.

General School Statistics, as reported by School Inspectors, for the Year ending September 6, 1886.

Counties.	No. of Townships and Cities reporting.	Whole No. of School Districts.	No. of Districts that Maintained School.	No. of Graded School Districts.	No. of Children between five and twenty years of age.	No. of Children that attended Public Schools.	Average No. of months of School.	No. of School Houses and Material of Construction.				Whole No. of Sittings provided in School Houses.	Estimated Valuation of School Property.
								Frame.	Brick.	Stone.	Log.		
Totals	1,199	6,972	6,906	443	603,767	416,650	7.2	5,647	1063	72	453	518,816	$11,850,646 00
Alcona	4	20	20	1	1,253	980	8.2	16	....	....	5	1,104	$15,345 00
Alger	3	5	5	.....	173	128	9	2	1	....	2	385	10,300 00
Allegan	24	185	183	11	12,677	9,960	7.6	172	17	....	....	12,913	294,581 00
Alpena	7	24	21	2	4,274	2,233	4.7	34	1	....	9	2,575	53,720 00
Antrim	14	65	65	2	3,038	2,498	6.7	45	2	....	20	3,372	61,083 00
Arenac	11	23	22	.....	1,400	976	7.	19	....	....	2	1,360	14,995 00
Baraga	4	10	9	1	829	547	6.9	10	....	....	2	660	15,300 00
Barry	17	147	147	5	7,812	6,688	7.6	135	11	....	2	9,150	158,643 00
Bay	13	47	46	4	14,705	8,384	8.	49	10	....	3	7,888	275,954 00
Benzie	12	41	41	2	1,553	1,317	5.9	38	....	....	4	1,761	23,781 00
Berrien	21	149	149	13	12,112	9,443	7.6	120	37	....	....	12,315	296,350 00
Branch	17	130	130	6	8,082	6,872	8.	86	38	11	....	9,022	194,235 00
Calhoun	23	165	165	7	11,905	9,118	8.	137	35	6	....	12,105	468,885 00
Cass	16	116	114	5	6,282	5,319	8.	88	29	....	....	7,183	140,775 00
Charlevoix	15	66	65	3	3,107	2,295	6.3	52	1	....	13	3,156	42,169 00
Cheboygan	14	48	48	2	3,157	1,970	7.5	29	1	....	17	2,369	32,140 00
Chippewa	8	39	37	2	2,962	1,889	6.1	17	1	....	20	2,593	29,921 00
Clare	12	36	34	3	1,644	1,236	5.8	26	....	....	10	2,025	28,135 00
Clinton	16	130	130	7	8,706	6,583	7.8	108	24	....	1	8,957	153,510 00
Crawford	9	40	39	1	696	593	5.3	30	....	....	8	1,326	20,230 00
Delta	12	26	26	1	2,609	1,497	7.6	17	1	....	4	1,560	45,036 00
Eaton	18	147	147	8	9,679	8,019	7.6	122	34	1	....	9,885	167,570 00
Emmet	12	62	60	2	2,588	1,844	5.5	39	....	....	20	2,735	32,516 00
Genesee	20	159	159	11	12,011	9,405	7.8	153	14	....	....	12,141	299,910 00
Gladwin	8	21	20	.....	557	485	6.8	10	....	....	10	857	14,845 00
GrandTraverse	13	63	60	3	3,795	2,761	7.2	61	2	....	4	3,307	67,165 00
Gratiot	17	124	124	6	8,767	6,925	7.4	113	9	....	3	8,733	137,388 00
Hillsdale	19	168	168	9	9,514	7,829	7.8	111	50	10	....	11,033	236,700 00

TABLE IV.—*Continued.*

Counties.	No. of Townships and Cities reporting.	Whole No. of School Districts.	No. of Districts that Maintained School.	No. of Graded School Districts.	No. of Children between five and twenty years of age.	No. of Children that attended Public Schools.	Average No. of months of School.	No. of School Houses and Material of Construction.				Whole No. of Sittings provided in School Houses.	Estimated Valuation of School Property.
								Frame.	Brick.	Stone.	Log.		
Houghton	8	17	15	9	9,952	5,765	8.6	16	1	1	....	4,669	$81,800 00
Huron	27	105	104	10	9,928	5,812	7.5	83	6	....	15	7,629	86,668 00
Ingham	17	135	134	9	10,827	8,465	8.1	109	31	1	2	9,964	233,108 00
Ionia	17	145	145	10	10,021	7,970	7.8	120	28	1	1	10,631	188,105 00
Iosco	11	22	22	4	3,261	1,837	7.5	24	....	....	3	2,265	30,750 00
Iron	4	7	6	1	679	544	8.4	5	....	....	....	635	15,900 00
Isabella	16	97	96	2	5,526	4,108	7.	75	3	....	17	5,301	68,990 00
Isle Royal	.....	.....	.....	.....	.....	.....	.....	.....	....	....	....	.....	.....
Jackson	20	158	157	10	12,676	9,933	8.3	114	55	1	....	12,541	321,560 00
Kalamazoo	17	137	137	7	10,643	7,717	7.8	113	32	....	....	10,393	346,610 00
Kalkaska	12	50	50	1	1,524	1,267	6.6	44	1	....	5	2,306	34,510 00
Kent	25	212	211	17	26,442	18,858	7.9	187	43	....	3	22,169	858,255 00
Keweenaw	7	10	10	5	1,181	777	7.8	10	....	....	1	1,344	20,100 00
Lake	13	48	46	3	2,049	1,594	6.2	39	1	....	5	2,211	33,258 00
Lapeer	19	136	134	11	10,215	7,901	8.	132	8	1	1	10,012	154,726 00
Leelanaw	11	52	52	2	2,534	1,724	6.	37	1	1	11	2,597	24,915 00
Lenawee	24	200	198	12	14,162	11,358	8.2	102	100	8	....	14,507	378,225 00
Livingston	16	134	134	5	6,531	5,542	8.7	119	11	3	1	7,705	133,585 00
Mackinac	10	28	28	2	1,462	1,042	4.9	15	....	....	10	1,413	33,359 00
Macomb	15	112	112	10	10,729	6,520	8.1	99	17	....	....	8,690	179,280 00
Manistee	13	52	52	4	6,427	4,389	7.	41	3	....	7	4,181	114,835 00
Manitou	4	5	5	1	530	293	8.4	2	....	....	4	605	1,425 00
Marquette	15	33	33	9	9,074	6,006	8.4	33	2	2	7	5,967	165,339 00
Mason	14	54	52	1	4,209	3,130	7.	47	3	....	9	3,527	75,255 00
Mecosta	17	100	97	3	6,633	4,953	7.	86	4	....	12	6,302	117,679 00
Menominee	10	40	37	3	5,810	3,830	7.2	35	1	....	7	4,183	89,095 00
Midland	15	56	55	2	3,178	2,469	7.	40	3	....	14	3,187	53,650 00
Missaukee	12	38	38	.....	955	775	6.6	28	....	....	5	1,440	21,367 00
Monroe	16	138	138	6	11,708	7,706	7.9	74	66	2	1	9,442	148,825 00
Montcalm	22	133	133	12	10,761	8,462	8.	125	3	....	6	10,585	155,169 00
Montmorency	6	20	20	.....	319	270	6.5	6	....	....	13	544	5,926 00
Muskegon	18	90	90	8	12,620	8,743	7.1	81	11	....	9	9,079	247,835 00
Newaygo	22	103	103	4	5,948	4,555	7.4	88	3	....	11	5,820	80,524 00
Oakland	25	217	217	14	11,530	9,429	7.7	178	31	14	....	13,838	284,630 00
Oceana	16	88	87	3	4,723	3,778	7.	81	....	....	7	4,914	93,805 00
Ogemaw	14	42	39	1	1,146	983	6.	30	....	....	7	1,629	17,239 00

TABLE IV.—*Continued.*

Counties.	No of Townships and Cities reporting.	Whole No. of School Districts.	No. of Districts that Maintained School.	No. of Graded School Districts.	No. of Children between five and twenty years of age.	No. of Children that Attended Public Schools.	Average No. of months of School.	No. of School Houses and Material of Construction.				Whole No. of Sittings provided in School Houses.	Estimated Valuation of School Property.
								Frame.	Brick.	Stone.	Log.		
Ontonagon	7	11	10	5	1,137	799	7.1	9	....	....	1	873	$17,000 00
Osceola	16	86	86	3	4,959	3,666	6.8	73	....	....	14	4,753	56,185 00
Oscoda	9	28	27	.....	428	383	4.3	17	....	....	9	767	7,598 00
Otsego	8	38	38	1	1,244	973	6.5	34	....	....	4	1,894	22,945 00
Ottawa	17	124	124	19	12,832	9,479	7.8	103	19	1	2	11,421	171,115 00
Presque Isle	10	28	28	1	1,352	776	4.9	14	....	....	17	1,663	18,275 00
Roscommon	6	14	9	.....	431	270	4.2	6	....	....	4	489	5,450 00
Saginaw	30	147	147	9	24,274	14,325	7.7	129	23	....	8	15,437	461,835 00
St. Clair	25	153	152	8	17,301	11,065	7.7	142	15	....	6	13,876	247,384 00
St. Joseph	16	125	124	9	7,707	6,493	8.	92	32	2	....	9,405	238,550 00
Sanilac	26	132	132	14	12,065	8,523	8.1	117	6	....	9	9,841	101,980 00
Schoolcraft	5	17	15	.....	848	580	5.6	12	....	....	5	930	11,880 00
Shiawassee	18	122	122	8	9,020	7,082	8.3	112	14	....	2	9,041	188,760 00
Tuscola	23	136	136	10	10,682	7,870	7.7	123	10	....	4	9,509	119,165 00
Van Buren	18	156	156	13	9,466	7,788	7.5	139	19	....	....	10,540	191,915 00
Washtenaw	22	167	166	8	13,183	9,276	8.	106	53	6	....	11,631	397,840 00
Wayne	20	150	146	15	71,841	28,556	8.4	105	76	....	1	28,387	1,306,873 00
Wexford	16	68	67	2	3,197	2,447	6.5	57	....	....	14	3,664	58,112 00

TABLE V.

Employment of Teachers, as Reported by School Inspectors, for the Year ending September 6, 1886.

Counties.	No. of Teachers Required.		Whole No. of Teachers Employed.		Aggregate No. of Months Taught by—		Total Wages of Teachers.			Average Monthly Wages.	
	Graded schools	Ungraded schools	Men.	Women.	Men.	Women.	Men.	Women.	Total.	Men.	Women.
Totals	3,273	6,511	3,934	11,386	20,699	1,305	$931,713 97	$1,910,398 21	$2,841,912 18	$45 00	$31 16
Alcona	4	24	12	16	82	118	$3,900 00	$4,360 40	$8,260 40	$46 12	$35 96
Alger	-------	5	2	3	19	26	995 00	1,130 00	2,125 00	63 87	43 44
Allegan	42	188	97	306	486	1,349	19,419 06	34,513 10	53,932 16	40 03	25 63
Alpena	25	38	7	65	56	433	3,320 50	15,449 25	18,769 75	61 79	35 02
Antrim	12	62	26	90	124	438	4,834 58	13,404 62	18,239 20	39 48	36 08
Arenac	-------	24	14	17	80	99	3,175 00	2,922 75	6,097 75	39 68	29 42
Baraga	5	9	5	9	42	72	2,924 00	3,220 00	6,144 00	69 60	44 73
Barry	26	142	95	231	397	941	14,218 68	21,739 34	35,958 02	35 81	23 10
Bay	109	42	22	138	172	1,237	10,299 00	45,909 34	56,208 34	60 46	36 22
Benzie	8	35	16	57	65	249	2,700 12	7,056 00	9,756 12	41 54	28 34
Berrien	83	136	82	255	439	1,353	21,619 46	40,384 83	62,004 29	49 24	29 83
Branch	47	124	95	237	440	1,018	17,687 50	25,363 11	43,050 61	40 19	24 91
Calhoun	88	158	86	344	434	1,725	20,511 68	47,745 30	68,256 98	47 25	27 68
Cass	25	111	88	176	427	731	17,101 08	21,223 99	38,325 07	40 05	28 20
Charlevoix	8	63	31	80	154	342	5,713 17	9,223 90	14,937 07	37 09	27 02
Cheboygan	8	46	12	62	131	293	6,145 00	8,919 15	15,964 15	46 90	30 44
Chippewa	9	35	15	37	98	212	4,255 75	6,363 60	10,619 35	49 12	29 59
Clare	10	32	10	46	63	215	3,095 00	6,351 03	9,446 03	47 55	29 53
Clinton	43	115	108	188	450	870	17,354 61	23,531 29	30,885 90	38 54	27 04
Crawford	3	39	17	41	68	170	2,647 70	4,884 35	7,532 05	38 91	28 73
Delta	9	27	6	37	49	256	2,985 00	9,034 00	12,019 00	60 90	39 19
Eaton	51	139	86	277	366	1,189	13,955 40	33,273 43	47,228 83	38 10	27 98
Emmet	14	61	28	77	111	351	4,075 00	9,251 52	13,326 52	35 81	26 35
Genesee	72	149	104	261	526	1,347	20,689 75	39,040 94	59,730 69	39 33	28 99
Gladwin	-------	22	5	28	23	131	884 20	3,863 50	4,747 20	39 75	29 49
G'd Traverse	17	57	34	76	172	370	7,317 50	12,876 45	20,193 95	42 54	34 74
Gratiot	30	118	101	156	463	706	16,482 25	19,094 55	35,576 80	35 57	27 04
Hillsdale	39	161	123	300	476	1,175	18,645 61	26,708 14	45,353 75	39 19	20 94
Houghton	88	5	19	83	189	772	17,556 00	38,368 51	55,918 51	92 85	49 71
Huron	24	95	52	93	368	574	14,912 80	16,595 93	31,508 73	40 52	28 91

TABLE V.—*Continued.*

Counties.	No. of Teachers Required.		Whole No. of Teachers Employed.		Aggregate No. of Months Taught by—		Total Wages of Teachers.			Average Monthly Wages.	
	Graded schools	Ungraded schools	Men.	Women.	Men.	Women.	Men.	Women.	Total.	Men.	Women.
Ingham	68	126	91	274	410	1,278	$18,010 74	$36,043 52	$54,154 26	$43 92	$28 22
Ionia	55	125	91	246	463	1,134	19,833 75	32,638 70	52,472 45	42 83	28 68
Iosco	21	18	9	46	62	280	4,241 50	9,423 32	13,464 82	68 41	33 65
Iron	5	6	4	7	38	61	2,381 00	2,936 00	5,317 00	62 63	48 13
Isabella	13	84	45	131	231	548	8,210 48	16,189 44	24,399 92	35 54	29 54
Isle Royal	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Jackson	94	147	110	310	531	1,612	25,319 39	48,686 77	74,006 16	47 68	30 20
Kalamazoo	81	133	77	286	349	1,483	16,500 63	44,293 41	60,794 04	57 27	31 22
Kalkaska	4	49	26	59	122	243	4,771 00	7,320 00	12,091 00	39 09	30 12
Kent	244	196	105	518	595	3,375	31,371 98	121,051 70	152,422 68	52 72	35 88
Keweenaw	9	5	8	9	61	56	5,146 50	2,378 50	7,525 00	84 37	42 47
Lake	11	41	12	60	82	297	3,307 00	8,723 35	12,040 25	40 30	29 38
Lapeer	41	127	72	180	439	999	18,096 60	25,363 36	44,459 96	41 42	25 38
Leelanaw	5	50	24	59	112	233	3,796 25	6,460 65	10,256 90	33 89	27 71
Lenawee	85	189	126	354	632	1,773	28,099 33	46,478 86	74,578 19	44 46	26 21
Livingston	26	129	95	209	409	882	14,833 75	17,950 90	32,784 65	36 22	20 35
Mackinac	12	23	14	26	82	129	3,569 60	4,260 13	7,829 73	43 53	33 02
Macomb	44	102	62	133	387	866	17,190 55	22,870 30	40,060 85	44 16	26 40
Manistee	42	48	26	89	152	600	7,543 00	23,882 54	31,225 54	49 49	26 53
Manitou	1	4	5	4	24	18	900 00	450 00	1,350 00	37 50	25 00
Marquette	77	24	21	93	184	788	15,489 77	36,246 75	51,736 52	84 60	45 99
Mason	24	54	36	80	182	456	7,662 41	16,607 85	24,270 26	42 07	33 42
Mecosta	28	93	41	142	212	733	8,269 33	23,182 79	31,453 12	38 96	31 62
Menominee	39	30	18	76	108	584	6,033 67	24,278 75	30,312 42	55 37	41 57
Midland	11	55	19	80	109	380	4,576 15	11,996 70	16,572 85	41 15	31 57
Missaukee	.....	37	16	40	88	175	3,410 12	6,056 95	9,467 07	38 75	34 61
Monroe	27	132	69	219	321	991	12,957 13	24,979 41	37,936 54	40 42	25 17
Montcalm	55	120	78	227	400	1,105	17,661 50	31,080 56	48,742 06	44 15	28 12
Montmorency	.....	20	3	24	17	114	578 25	3,270 00	3,884 25	34 01	28 68
Muskegon	93	82	39	194	253	1,273	14,185 54	47,893 44	59,074 98	56 66	35 25
Newaygo	15	99	48	155	242	637	9,569 90	17,213 10	17,783 00	43 07	27 85
Oakland	69	203	108	320	574	1,680	24,169 35	40,312 67	64,482 02	43 84	23 99
Oceana	13	85	58	108	252	484	9,634 53	13,436 38	22,070 91	38 23	27 85
Ogemaw	2	38	18	42	91	176	3,359 50	5,372 35	8,731 85	36 91	30 52
Ontonagon	16	5	10	12	94	103	6,720 00	3,730 00	10,450 00	71 49	36 31
Osceola	17	83	45	109	231	514	9,222 00	14,869 50	24,091 50	42 60	28 89

TABLE V.—*Continued.*

Counties.	No. of Teachers Required.		Whole No. of Teachers Employed.		Aggregate No. of Months Taught by—		Total Wages of Teachers.			Average Monthly Wages.	
	Graded schools	Ungraded schools	Men.	Women.	Men.	Women.	Men.	Women.	Total.	Men.	Women.
Oscoda	.....	29	11	25	38	84	$1,075 00	$1,978 30	$2,053 30	$28 28	$23 52
Otsego	4	37	21	43	99	186	3,464 75	5,237 50	8,702 25	34 98	28 16
Ottawa	78	104	71	182	460	1,086	20,480 49	31,405 88	51,886 37	44 52	29 83
Presque Isle	3	27	24	12	104	44	3,339 50	1,281 00	4,620 50	32 11	29 11
Roscommon	.....	11	5	10	18	50	786 30	1,696 00	2,482 30	43 64	33 92
Saginaw	155	134	93	279	582	2,033	31,792 57	70,629 69	102,422 26	54 62	34 72
St. Clair	69	144	52	233	335	1,482	15,076 10	41,389 60	56,465 70	45 00	37 35
St. Joseph	57	119	77	229	360	1,108	17,578 60	29,121 69	46,700 29	48 82	26 66
Sanilac	26	120	82	111	595	650	21,391 77	16,220 40	37,612 17	35 95	24 95
Schoolcraft	4	14	9	12	59	69	2,903 30	2,684 00	5,587 36	49 20	38 89
Shiawassee	41	121	83	205	419	941	17,418 88	26,223 45	43,642 33	41 56	27 85
Tuscola	36	126	79	169	450	883	17,414 40	23,401 03	40,815 43	38 69	26 50
Van Buren	54	144	78	259	395	1,191	17,176 08	31,413 18	48,589 26	45 50	26 49
Washtenaw	99	158	97	299	513	1,767	29,367 69	50,942 14	80,309 83	57 24	28 82
Wayne	387	135	85	519	596	4,449	38,294 44	213,370 88	251,665 32	73 75	47 73
Wexford	16	64	33	92	167	430	6,526 50	13,672 50	20,199 00	39 06	31 79

TABLE VI.

Resources of School Districts, as Reported by School Inspectors for the Year ending September 6, 1886.

Counties.	Moneys on hand Sept. 7, 1885.	One Mill Tax.	Primary School Interest Fund.	Library Moneys.	District Taxes for all Purposes.	Raised from all other Sources.	Total Resources for the Year.
Totals	$959,149 34	$640,141 50	$762,209 02	$48,466 05	$2,736,078 59	$546,192 83	$5,692,237 33
Alcona	$2,494 72	$1,480 29	$1,506 30	.....	$7,930 32	$560 30	$13,971 93
Alger	393 06	972 81	150 00	.....	1,950 00	1,255 80	4,721 67
Allegan	16,884 19	12,880 73	16,079 79	$482 11	42,403 72	12,364 29	101,094 83
Alpena	2,883 85	808 63	6,100 42	72 74	22,044 83	1,117 79	33,028 26
Antrim	5,035 97	2,760 43	3,425 65	6 14	21,042 63	1,520 20	33,791 02
Arenac	3,373 72	821 12	1,245 31	.....	7,064 34	252 88	12,757 37
Baraga	2,787 54	899 66	741 46	.....	9,065 00	165 01	14,428 67
Barry	17,350 24	9,579 55	10,798 03	512 33	34,753 33	5,621 08	78,614 56
Bay	23,285 14	4,104 42	23,681 76	223 78	64,289 91	3,848 03	119,432 04
Benzie	1,803 77	1,159 80	1,778 18	36 45	10,843 24	1,707 78	17,329 22
Berrien	17,114 04	12,585 80	15,369 49	417 12	59,475 91	5,089 57	110,051 93
Branch	14,826 41	16,461 53	9,775 82	325 70	33,283 14	5,599 64	80,272 24
Calhoun	14,401 52	16,773 42	15,760 81	390 45	80,726 68	9,050 44	137,103 32
Cass	10,897 94	13,370 16	8,196 07	212 03	25,734 37	9,549 69	67,960 26
Charlevoix	3,739 01	1,867 07	3,640 77	32 34	16,850 30	3,036 03	29,165 52
Cheboygan	7,125 56	3,066 68	4,244 92	210 28	16,399 98	2,042 91	33,090 33
Chippewa	2,410 23	2,487 44	3,345 88	173 49	11,254 67	4,596 46	24,268 17
Clare	4,898 91	2,477 08	1,716 23	6 12	10,637 59	2,706 21	22,442 12
Clinton	16,273 64	15,723 47	11,138 07	507 85	31,613 16	25,184 55	100,440 74
Crawford	3,865 97	1,207 96	497 94	.....	11,957 73	385 93	17,915 53
Delta	4,405 88	1,923 88	2,609 95	50 00	13,076 24	5,812 26	27,878 21
Eaton	16,383 31	14,709 33	12,364 46	202 08	42,946 27	9,328 95	95,934 35
Emmet	2,970 57	1,729 67	2,682 72	.....	14,793 40	5,464 94	27,641 30
Genesee	13,313 89	18,494 23	17,120 72	617 54	56,767 18	7,311 30	113,624 86
Gladwin	1,025 20	947 59	461 66	.....	7,341 11	395 96	10,171 52
Grand Traverse	4,179 83	2,925 07	4,317 03	859 52	23,756 64	27,446 11	63,484 20
Gratiot	24,347 89	6,477 41	10,327 61	423 95	38,411 94	7,630 39	87,619 19
Hillsdale	10,438 63	18,298 99	12,343 67	714 61	26,447 29	5,664 61	73,907 80
Houghton	60,857 71	20,068 19	11,415 92	179 97	33,841 77	20,080 01	146,443 57
Huron	10,635 53	4,602 28	12,071 69	84 76	28,958 03	4,599 27	60,951 56
Ingham	13,415 94	11,225 84	14,402 08	1,229 16	53,725 92	7,326 90	101,325 84

TABLE VI.—*Continued.*

Counties.	Moneys on hand Sept. 7, 1885.	One Mill Tax.	Primary School Interest Fund.	Library Moneys.	District Taxes for all Purposes.	Raised from all other Sources.	Total Resources for the Year.
Ionia	$16,198 24	$14,485 33	$12,652 90	$676 14	$46,714 17	$5,909 60	$96,636 38
Iosco	3,512 62	1,190 61	4,187 53	109 79	17,028 67	464 63	26,493 83
Iron	2,747 93	2,340 79	1,299 05	.....	7,464 97	588 30	14,441 04
Isabella	8,950 18	3,969 99	6,660 33	72 44	26,787 09	2,020 90	48,460 93
Isle Royal	.....	.....	.....	.....	.....	.....	.....
Jackson	18,514 72	21,530 42	16,533 33	941 83	56,040 58	17,639 76	131,200 64
Kalamazoo	15,592 66	19,820 44	12,736 98	1,997 84	68,250 05	5,649 82	124,047 79
Kalkaska	4,394 73	2,483 95	1,888 86	62 33	13,246 85	1,802 66	23,879 38
Kent	40,769 80	27,456 34	33,727 96	3,326 89	155,056 27	28,258 73	288,595 98
Keweenaw	4,176 34	2,512 39	1,902 52	.....	5,293 30	586 23	14,470 78
Lake	5,678 50	1,954 29	2,059 02	.....	13,902 04	880 14	24,473 99
Lapeer	10,270 74	11,419 98	13,034 10	216 08	32,405 77	4,383 48	71,730 15
Leelanaw	2,835 82	832 65	2,961 36	.....	9,414 70	1,674 46	17,718 99
Lenawee	18,297 06	27,536 03	18,770 23	1,085 15	56,449 53	8,504 45	130,642 45
Livingston	9,838 66	12,223 51	7,906 75	212 72	26,894 13	2,244 50	59,320 27
Mackinac	3,056 71	1,337 88	1,545 40	8 88	8,868 94	1,702 75	16,520 56
Macomb	16,545 39	16,626 01	15,097 97	268 81	24,436 06	5,217 24	78,191 48
Manistee	14,795 03	4,532 17	7,804 17	497 90	37,159 19	15,467 09	80,255 55
Manitou	104 30	46 89	637 62	.....	464 46	323 06	1,576 33
Marquette	17,252 61	12,821 53	13,857 49	510 07	68,973 01	11,408 37	124,823 08
Mason	5,764 61	3,250 67	4,854 14	856 24	21,953 29	20,461 98	57,140 93
Mecosta	21,102 00	5,055 20	7,954 93	177 05	35,767 90	13,139 73	83,196 81
Menominee	14,292 16	5,482 93	6,048 06	15 80	50,351 61	4,735 23	80,925 79
Midland	6,277 69	1,722 46	3,822 18	205 93	21,006 57	1,855 01	34,889 84
Missaukee	6,521 39	2,037 20	720 46	4 10	11,818 85	2,920 67	24,022 67
Monroe	10,448 24	15,408 24	15,095 02	217 20	20,558 19	3,426 64	65,963 53
Montcalm	22,109 43	7,701 12	15,095 10	145 08	38,222 33	3,867 07	87,140 13
Montmorency	2,012 52	732 18	256 48	.....	5,743 96	881 31	9,626 45
Muskegon	18,083 32	7,828 87	15,230 69	435 08	71,670 61	3,805 28	117,053 85
Newaygo	14,552 70	3,474 89	6,649 87	119 98	27,647 48	5,453 91	57,898 83
Oakland	10,616 24	22,252 99	14,464 39	578 29	47,745 98	6,538 51	102,196 40
Oceana	8,860 61	3,210 55	4,937 71	14 20	20,921 08	1,718 86	39,663 01
Ogemaw	2,461 05	1,351 12	1,188 07	14 94	11,260 80	1,330 70	17,606 68
Ontonagon	4,864 45	2,502 19	1,929 96	.....	8,730 66	404 32	18,431 58
Osceola	8,335 12	3,849 16	5,878 56	15 29	25,497 28	7,180 99	50,756 40
Oscoda	997 57	503 85	352 63	.....	3,586 32	1,352 69	6,793 06
Otsego	3,190 17	1,675 04	1,262 54	82 97	10,906 81	629 08	17,746 61
Ottawa	14,445 67	9,597 92	16,500 11	321 94	42,950 45	6,131 88	89,947 97

TABLE VI.—*Continued.*

Counties.	Moneys on hand Sept. 7, 1885.	One Mill Tax.	Primary School Interest Fund.	Library Moneys.	District Taxes for all Purposes.	Raised from all other Sources.	Total Resources for the Year.
Presque Isle	$944 55	$809 10	$1,863 28	$10 00	$5,587 58	$1,607 70	$10,822 21
Roscommon	1,879 68	1,185 77	393 15	81	2,061 00	625 67	6,166 08
Saginaw	40,918 70	13,341 10	30,608 76	963 61	123,290 63	26,113 36	234,536 18
St. Clair	29,531 62	12,882 59	24,556 00	495 99	38,985 89	8,186 52	114,638 61
St. Joseph	10,241 79	19,220 67	10,263 58	104 90	35,010 11	7,846 49	82,687 54
Sanilac	12,414 66	5,064 75	15,238 61	71 82	35,951 79	6,206 75	74,948 38
Schoolcraft	4,552 47	2,140 37	1,024 77	.....	4,260 64	1,141 07	13,119 32
Shiawassee	14,342 91	10,986 58	11,405 91	483 08	44,360 10	2,345 40	83,923 98
Tuscola	15,348 42	8,015 24	13,104 14	279 95	34,643 71	6,930 69	78,322 15
Van Buren	13,810 82	9,746 14	10,293 94	493 02	45,477 69	5,945 62	85,767 23
Washtenaw	13,224 50	29,721 69	16,946 55	854 16	59,076 27	10,423 41	130,246 58
Wayne	73,526 82	17,823 81	84,914 21	23,489 41	271,534 86	66,767 68	537,356 79
Wexford	6,825 61	3,555 41	3,971 22	58 87	25,241 75	4,707 15	44,360 01

TABLE VII.

Expenditures of School Districts, as reported by School Inspectors, for the Year ending September 6, 1886.

Counties.	Paid Teachers.	Paid for Building and Repairs.	Paid for Library Books and Care of Library.	Paid on Bonded Indebtedness.	Paid for all other Purposes.	Total Expenditures for the Year.	Amount on hand Sept. 6, 1886.
Totals	$2,841,143 79	$632,942 71	$43,159 36	$358,484 12	$815,223 61	$4,690,953 59	$1,001,283 74
Alcona	$8,260 40	$929 32	.....	$690 65	$2,190 08	$12,070 45	$1,901 48
Alger	2,030 00	349 14	.....	802 92	970 44	4,152 50	569 17
Allegan	53,829 16	12,765 91	$276 45	4,020 52	11,667 80	82,559 84	18,534 99
Alpena	18,790 49	5,888 10	530 34	8 10	5,494 01	30,711 04	2,317 22
Antrim	18,098 10	2,038 25	3 00	1,276 45	6,590 27	28,004 07	5,786 95
Arenac	6,007 75	752 72	38 60	1,228 21	1,185 33	9,212 61	3,544 76
Baraga	6,139 00	853 65	36 50	1,764 00	2,831 85	11,625 00	2,803 67
Barry	35,997 42	8,881 61	197 28	9,949 43	10,294 91	65,320 65	13,293 91
Bay	56,482 46	14,108 94	668 86	3,744 62	19,513 69	94,518 57	24,913 47
Benzie	9,811 89	1,834 89	.....	1,067 89	2,014 96	14,729 63	2,599 59
Berrien	62,029 29	4,390 47	137 70	10,350 29	12,984 62	89,892 37	20,159 56
Branch	42,971 36	6,724 26	71 39	4,942 65	12,237 38	66,947 04	13,325 20
Calhoun	68,263 73	17,660 35	612 76	18,111 03	18,536 77	123,184 64	13,918 68
Cass	38,301 32	2,437 66	126 45	5,865 35	10,337 58	57,068 36	10,891 90
Charlevoix	14,979 74	3,608 03	8 53	1,530 74	4,732 75	24,859 79	4,305 73
Cheboygan	15,003 15	1,821 88	218 91	3,248 45	4,252 05	24,544 44	8,545 89
Chippewa	10,833 03	2,123 47	2 25	2,247 07	3,511 19	18,717 01	5,551 16
Clare	9,446 03	2,187 76	.....	1,042 00	3,863 63	16,539 42	5,902 70
Clinton	41,142 55	31,005 45	104 51	4,173 89	9,373 80	86,300 20	14,140 54
Crawford	7,478 41	751 87	.....	972 50	2,974 60	12,177 38	5,738 15
Delta	12,004 00	1,465 73	227 87	6,204 49	5,312 93	25,215 02	2,663 19
Eaton	46,991 84	16,811 47	60 61	9,390 64	11,397 76	84,652 32	11,282 03
Emmet	13,493 20	4,892 38	.....	1,653 45	4,271 74	24,310 77	3,330 53
Genesee	59,616 20	6,208 18	1,072 24	13,199 68	13,396 73	93,493 03	20,131 83
Gladwin	4,697 70	1,379 13	.....	339 21	2,246 77	8,662 81	1,508 71
Grand Traverse	20,217 95	31,195 53	355 00	3,843 49	3,463 66	59,075 63	4,408 57
Gratiot	35,281 22	25,039 13	159 81	6,333 99	8,108 93	74,923 08	12,696 11
Hillsdale	45,327 77	4,675 81	63 90	1,163 96	9,882 16	61,113 60	12,794 20
Houghton	55,918 51	7,467 59	163 81	1,600 00	32,510 76	97,660 67	48,782 90
Huron	31,449 73	6,011 85	71 55	4,893 08	8,204 80	50,631 01	10,320 55

TABLE VII.—*Continued.*

Counties.	Paid Teachers.	Paid for Building and Repairs.	Paid for Library Books and Care of Library.	Paid on Bonded Indebtedness.	Paid for all other Purposes.	Total Expenditures for the Year.	Amount on hand Sept. 6, 1886.
Ingham	$53,993 52	$6,022 54	$2,459 89	$5,901 34	$18,593 09	$86,970 38	$14,375 46
Ionia	52,241 45	3,783 12	70 00	8,911 45	17,372 19	82,378 21	14,258 17
Iosco	13,028 94	2,286 03	70 55	2,748 84	4,208 34	22,342 70	4,151 13
Iron	5,317 00	756 45	.....	1,938 70	1,755 27	9,767 42	4,673 62
Isabella	24,543 59	2,760 69	.....	5,691 80	4,837 07	37,833 15	10,627 78
Jackson	73,822 60	12,895 90	293 54	6,422 60	19,482 11	112,916 75	18,283 89
Kalamazoo	61,590 00	12,868 05	1,994 45	14,107 50	17,088 64	107,648 64	16,399 15
Kalkaska	11,976 27	1,811 18	.....	1,381 02	4,657 53	19,826 00	4,053 38
Kent	152,325 08	30,361 79	6,322 02	20,328 85	52,868 64	262,206 38	26,389 60
Keweenaw	7,525 00	156 87	34 87	.....	1,852 19	9,568 93	4,901 85
Lake	11,945 60	1,476 97	43 24	2,769 15	3,179 65	19,414 61	5,059 38
Lapeer	43,530 46	3,445 15	155 99	2,956 64	7,451 45	57,539 69	14,190 46
Leelanaw	10,286 90	1,789 26	6 10	1,176 08	1,445 53	14,703 87	3,015 12
Lenawee	74,550 14	10,282 89	767 14	5,778 84	17,678 96	109,057 97	21,584 48
Livingston	32,990 14	2,955 15	102 29	4,949 81	6,774 91	47,772 30	11,547 97
Mackinac	7,790 73	1,998 04	52 50	728 20	3,187 10	13,756 57	2,763 99
Macomb	40,356 52	4,544 43	335 84	6,477 96	10,496 14	62,210 89	15,980 59
Manistee	31,425 54	12,412 10	568 37	5,526 34	12,006 23	61,938 58	18,316 97
Manitou	1,205 00	42 06	.....	.....	246 34	1,493 40	82 93
Marquette	52,155 52	10,332 67	693 07	11,753 76	27,852 79	102,787 81	22,035 27
Mason	24,172 26	8,692 55	413 64	3,028 57	6,001 34	42,308 36	14,832 57
Mecosta	31,402 13	10,347 55	279 54	7,773 01	9,232 87	59,035 10	24,161 71
Menominee	30,647 01	11,792 04	.....	7,832 94	12,394 65	62,666 64	18,259 15
Midland	16,803 97	1,639 61	226 55	3,151 44	5,849 08	27,660 65	7,229 19
Missaukee	9,523 76	2,461 91	28 67	905 00	3,121 92	16,041 26	7,981 41
Monroe	38,143 64	3,079 46	539 02	3,616 83	8,431 39	53,810 34	12,153 19
Montcalm	48,666 31	4,201 39	35 09	2,281 99	12,602 60	67,787 38	19,352 75
Montmorency	3,794 92	1,644 20	.....	907 74	1,437 27	7,784 13	1,842 33
Muskegon	62,033 98	7,149 50	691 70	9,227 80	13,594 30	92,697 28	24,356 57
Newaygo	27,814 00	3,335 22	.....	6,706 64	6,053 95	43,909 81	13,989 02
Oakland	64,563 02	7,389 85	304 54	2,429 78	15,390 64	90,077 83	12,118 57
Oceana	22,963 84	2,825 18	47 50	894 32	4,509 90	31,210 74	8,452 27
Ogemaw	8,685 50	2,309 61	5 65	924 63	2,233 76	14,219 15	3,387 53
Ontonagon	10,450 00	396 25	.....	.....	2,188 17	13,034 42	5,397 16
Osceola	24,017 96	8,308 95	50 00	3,205 58	6,176 46	41,758 95	8,997 45
Oscoda	3,009 68	808 35	.....	175 32	905 17	4,898 52	1,894 54
Otsego	8,743 25	1,018 88	36 83	1,889 85	2,027 37	13,716 18	4,030 43

TABLE VII.—*Continued.*

Counties.	Paid Teachers.	Paid for Building and Repairs.	Paid for Library Books and Care of Library.	Paid on Bonded Indebtedness.	Paid for all other Purposes.	Total Expenditures for the Year.	Amount on hand Sept. 6, 1886.
Ottawa	$51,936 37	$10,367 16	$318 35	$1,724 39	$8,650 32	$75,996 59	$13,951 38
Presque Isle	4,559 41	690 74	170 11	1,429 83	1,810 02	8,660 16	2,162 05
Roscommon	2,482 30	306 06	.....	880 50	656 95	4,325 81	1,840 27
Saginaw	102,579 63	45,207 37	3,241 64	10,288 42	39,742 11	201,059 17	33,477 01
St. Clair	56,370 94	11,285 24	463 93	3,612 22	18,570 07	90,302 40	24,336 21
St. Joseph	46,768 59	4,493 30	83 50	7,512 09	14,038 22	72,895 70	9,791 84
Sanilac	37,465 23	8,134 25	24 63	6,137 17	8,175 33	59,936 61	15,011 77
Schoolcraft	5,599 30	1,240 03	.....	372 30	1,628 71	8,830 34	4,288 98
Shiawassee	43,708 33	4,138 75	128 89	12,854 33	8,873 54	69,703 84	14,220 14
Tuscola	40,742 74	6,741 19	125 73	2,122 85	11,583 65	61,316 16	17,005 99
Van Buren	48,483 84	5,550 37	117 89	5,537 18	12,836 34	72,625 62	13,141 61
Washtenaw	80,213 53	10,079 98	773 52	4,685 99	18,509 88	114,262 90	15,983 68
Wayne	251,681 70	92,140 67	15,775 37	5,797 68	72,009 81	437,405 23	99,951 56
Wexford	19,665 25	5,875 23	98 89	2,270 05	8,099 70	36,009 12	8,350 89

TABLE VIII.

Miscellaneous Financial Statistics, as reported by School Inspectors for the year ending September 6, 1886.

Counties.	Bonded Indebtedness of the Districts.	Total Indebtedness of the Districts.	Amount due the Districts.	Amount Received by the Districts for Non-resident Tuition.	Amount paid and due Inspectors and members of School Boards for Services.	Amount paid and due Township Chairmen and officers for Services.
Totals	$1,460,169 01	$1,601,309 30	$148,475 22	$52,092 51	$22,475 33	$34,920 95
Alcona	$1,800 00	$3,093 52	$405 28	.....	$43 75	$1 50
Alger	600 00	695 00	189 74	.....	.....	21 60
Allegan	12,442 73	14,671 31	1,216 10	$1,677 27	487 72	475 99
Alpena	100 00	758 86	419 17	6 80	871 50	151 00
Antrim	23,131 47	23,506 73	793 59	29 75	184 00	155 25
Arenac	170 00	1,817 27	1,264 77	25 50	105 15	114 90
Baraga	4,023 00	4,989 00	.....	.....	40 00	.....
Barry	37,886 66	38,969 72	465 88	1,047 82	269 25	353 75
Bay	5,534 00	13,951 38	1,006 97	324 12	2,149 00	1,737 50
Benzie	2,541 50	3,522 58	1,029 48	10 79	85 75	97 50
Berrien	26,479 70	26,770 82	5,416 09	1,244 24	287 00	318 80
Branch	12,480 50	13,509 04	1,142 31	1,322 74	177 75	489 25
Calhoun	65,157 00	65,741 18	1,423 25	2,308 19	403 50	737 00
Cass	6,088 73	7,020 39	1,445 05	510 31	386 50	374 47
Charlevoix	12,320 00	13,487 40	695 91	56 94	208 25	155 25
Cheboygan	9,150 00	9,574 77	1,111 60	135 00	170 00	81 10
Chippewa	9,910 00	13,642 59	690 45	2 00	55 50	69 00
Clare	3,492 00	4,617 26	3,330 79	3 00	148 50	75 50
Clinton	29,890 70	31,233 21	2,224 42	1,057 25	273 25	254 25
Crawford	3,725 42	4,417 00	1,778 77	8 50	157 65	113 50
Delta	23,160 07	23,789 12	907 26	2 50	68 00	174 00
Eaton	30,488 50	31,138 56	2,537 72	1,658 73	381 15	412 50
Emmet	11,768 39	12,226 20	2,695 53	63 90	189 10	124 85
Genesee	107,181 66	110,949 92	624 37	1,571 77	439 55	666 75
Gladwin	4,100 00	5,154 93	1,520 66	.....	150 50	70 00
Grand Traverse	32,229 50	32,787 52	1,373 88	308 42	293 42	197 20
Gratiot	54,615 00	56,458 58	2,933 87	532 87	383 10	277 43
Hillsdale	2,260 00	3,864 92	1,524 39	1,289 15	272 00	473 25
Houghton	14,500 00	15,711 70	554 64	350 66	168 00	114 00
Huron	18,065 30	19,286 92	967 57	80 92	315 00	304 25

TABLE VIII.—*Continued.*

Counties.	Bonded Indebtedness of the Districts.	Total Indebtedness of the Districts.	Amount due the Districts.	Amount Received by the Districts for Non-resident Tuition.	Amount paid and due Inspectors and members of School Boards for Services.	Amount paid and due Township Chairmen and officers for Services.
Ingham	$59,653 00	$63,230 15	$710 20	$1,152 01	$245 00	$316 60
Ionia	18,500 00	22,517 69	950 83	2,282 47	328 00	298 00
Iosco	5,008 00	7,086 47	3,447 39	19 00	82 00	27 00
Iron	9,750 00	9,809 00	1,800 00	.....	86 00	21 00
Isabella	17,827 00	18,789 09	2,687 30	100 78	346 75	289 75
Isle Royal	.....	.....	.....	.....	.....	.....
Jackson	5,734 00	7,878 08	871 00	2,237 04	192 85	276 35
Kalamazoo	17,107 44	17,922 59	1,060 22	1,683 59	307 65	512 00
Kalkaska	7,206 00	8,741 71	658 50	89 56	194 10	208 44
Kent	215,071 91	216,804 04	2,437 44	2,551 58	469 75	1,080 45
Keweenaw	.....	876 47	645 06	.....	84 50	10 00
Lake	4,062 25	4,792 40	1,069 08	35 00	138 50	156 95
Lapeer	19,588 33	20,377 17	844 17	1,354 40	264 00	240 75
Leelanaw	2,402 32	2,579 82	392 18	14 77	146 60	109 75
Lenawee	12,698 75	14,958 54	1,806 28	2,098 22	705 75	769 65
Livingston	7,920 50	8,446 14	819 91	1,178 85	218 75	244 25
Mackinac	11,120 50	11,706 91	1,931 78	2 15	97 15	134 90
Macomb	19,388 00	20,351 53	643 90	1,009 60	269 75	363 25
Manistee	27,309 57	28,610 56	895 42	205 16	187 11	134 86
Manitou	.....	300 00	670 00	2 22	47 50	37 50
Marquette	50,500 00	52,111 00	4,530 36	78 00	287 00	1,890 00
Mason	24,610 00	25,091 22	860 48	112 82	153 25	340 75
Mecosta	21,053 70	22,024 96	2,342 96	43 11	287 70	460 00
Menominee	18,658 35	20,137 95	1,142 97	15 00	269 25	302 40
Midland	3,680 32	5,796 76	5,585 80	38 85	141 25	106 75
Missaukee	1,850 00	2,866 75	1,054 10	.....	269 00	132 75
Monroe	19,788 00	30,552 01	74 08	937 93	360 50	363 75
Montcalm	6,899 87	7,230 89	8,218 55	837 19	364 75	315 00
Montmorency	1,760 00	2,062 62	4,456 14	.....	92 37	62 23
Muskegon	39,077 50	40,535 61	2,348 13	325 90	1,138 25	1,049 15
Newaygo	8,007 00	8,530 47	6,338 12	76 93	404 65	356 15
Oakland	6,973 47	18,109 76	883 14	2,402 90	299 86	504 66
Oceana	1,367 40	2,003 63	2,175 39	154 50	410 87	265 00
Ogemaw	332 00	1,891 25	3,274 02	1 50	119 00	64 50
Ontonagon	375 00	375 00	300 00	.....	47 00	51 00
Osceola	11,600 00	12,260 98	1,194 37	81 25	314 47	219 62
Oscoda	950 00	1,563 50	1,034 39	413 00	104 00	59 50

TABLE VIII.—*Continued.*

Counties.	Bonded Indebtedness of the Districts.	Total Indebtedness of the Districts.	Amount due the Districts.	Amount Received by the Districts for Non-resident Tuition.	Amount paid and due Inspectors and members of School Boards for Services.	Amount paid and due Township Chairmen and officers for Services.
Otsego	$2,878 15	$3,164 84	$801 54	$2 42	$197 87	$107 00
Ottawa	21,206 05	22,652 14	2,749 78	380 97	427 00	561 80
Presque Isle	3,200 00	8,636 58	3,452 84	----------	108 91	113 66
Roscommon	600 00	600 00	119 00	----------	66 50	30 50
Saginaw	37,310 00	40,910 41	4,148 80	589 95	469 70	2,436 42
St. Clair	21,321 98	28,931 74	6,719 16	345 19	266 90	310 35
St. Joseph	7,815 00	9,877 46	588 62	2,076 78	274 25	312 75
Sanilac	19,233 63	23,856 81	2,232 05	64 87	595 00	373 50
Schoolcraft	710 00	899 00	95 80	----------	20 50	19 50
Shiawassee	27,441 44	27,856 66	716 55	1,089 62	317 50	399 50
Tuscola	20,505 00	26,688 72	3,181 79	636 69	386 39	342 75
Van Buren	11,745 50	14,921 11	1,839 76	1,219 60	346 35	259 50
Washtenaw	16,061 00	18,023 70	520 39	5,661 25	273 00	673 25
Wayne	21,230 00	21,495 93	8,999 39	2,877 66	392 50	8,272 75
Wexford	6,278 25	6,514 08	466 63	83 09	228 24	391 73

TABLE IX.

Cost per Capita of Public Schools of the State for the year ending September 6, 1886.

Counties.	No. Scholars included in School Census in—		No. Pupils Enrolled in—		Cost Per Capita for Instruction, Based upon School Census in—			Cost Per Capita for Instruction, Based upon the Enrollment in—			Total Expense Per Capita during Year, based upon Enrollment in—		
	Graded School Districts.	Ungraded School Districts.	Graded School Districts.	Ungraded School Districts.	Graded School Districts.	Ungraded School Districts.	All the Districts.	Graded School Districts.	Ungraded School Districts.	All the Districts.	Graded School Districts.	Ungraded School Districts.	All the Districts.
Totals	285,653	318,253	181,759	234,992	$5 04	$4 44	$4 70	$7 92	$5 96	$6 82	$14 81	$8 50	$11 28
Alcona	302	951	251	729	$5 78	$6 84	$6 51	$6 96	$8 93	$8 44	$8 98	$13 46	$12 30
Alger	.....	173	.....	128	.....	12 38	12 38	.....	16 57	16 57	.....	32 44	32 44
Allegan	3,248	9,429	2,878	7,082	5 82	3 73	4 25	6 85	4 97	5 21	10 95	7 20	8 27
Alpena	3,053	1,221	1,461	772	4 00	5 37	4 39	8 35	8 49	8 44	14 00	13 28	13 75
Antrim	831	2,207	788	1,710	6 55	5 79	6 00	6 90	7 48	7 30	11 86	10 90	11 28
Arenac	.....	1,400	.....	976	.....	4 35	4 35	.....	6 24	6 24	.....	9 43	9 43
Baraga	329	500	224	323	7 75	7 18	7 40	11 38	11 12	11 23	23 14	19 93	21 29
Barry	1,574	6,238	1,413	5,275	6 04	4 23	4 60	6 73	5 01	5 37	19 00	7 29	9 76
Bay	11,064	3,641	6,456	1,928	3 99	3 31	3 82	5 29	6 30	6 70	11 19	11 52	11 27
Benzie	537	1,016	468	849	6 56	6 13	6 28	7 53	7 33	7 40	9 96	11 90	11 18
Berrien	5,325	6,787	4,109	5,334	5 86	4 51	5 11	7 62	5 75	6 56	12 08	7 54	9 51
Branch	2,717	5,365	2,395	4,477	7 03	4 45	5 32	7 98	5 34	6 26	13 99	7 46	9 74
Calhoun	5,666	6,239	4,101	5,017	6 09	5 40	5 73	8 42	6 71	7 48	18 68	9 27	13 51
Cass	1,439	4,843	1,334	3,985	7 69	5 62	6 10	8 30	6 83	7 26	15 64	9 08	10 72
Charlevoix	743	2,364	607	1,688	4 05	5 04	4 80	4 95	7 06	6 50	10 04	11 10	10 87
Cheboygan	746	2,411	464	1,506	5 12	4 70	5 05	8 23	7 46	8 10	15 08	11 61	12 45
Chippewa	1,215	1,747	833	1,056	2 43	4 38	3 58	3 54	7 25	5 67	9 92	9 71	9 90
Clare	789	855	606	630	5 24	6 21	5 73	6 82	8 42	7 64	9 00	17 58	13 38
Clinton	2,114	6,592	1,871	4,712	6 46	4 13	3 54	7 29	5 78	4 69	22 71	9 52	13 10
Crawford	216	480	171	422	7 42	12 35	10 82	9 41	14 05	11 01	15 61	22 50	20 53
Delta	1,134	1,475	396	1,101	3 83	5 19	4 60	10 98	6 91	8 02	34 27	10 57	16 90
Eaton	3,238	6,441	2,813	5,206	5 85	4 49	4 87	6 73	5 43	5 87	15 91	7 65	10 55
Emmet	1,140	1,448	815	1,029	4 57	5 60	5 11	6 39	7 88	7 22	12 67	12 61	13 12
Genesee	4,733	7,278	3,596	5,809	6 06	4 29	4 97	7 97	5 34	6 35	14 22	7 28	9 93
Gladwin	.....	557	.....	485	.....	8 52	8 52	.....	9 78	9 78		17 86	17 86
Gr. Traverse	1,334	2,461	859	1,902	5 51	5 21	5 32	8 58	6 69	7 31	47 64	9 54	21 39
Gratiot	2,197	6,570	1,830	5,096	5 32	3 61	4 05	6 38	4 66	5 13	22 88	6 83	10 81
Hillsdale	2,831	6,683	2,213	5,616	5 62	4 40	4 76	7 20	5 23	5 79	10 37	6 79	7 80
Houghton	6,784	3,168	5,253	512	7 50	1 58	5 61	9 68	9 82	9 69	16 20	24 43	11 73
Huron	2,665	7,263	1,611	4,201	3 83	2 93	3 17	6 33	5 07	5 42	9 39	8 44	8 71
Ingham	5,052	5,775	3,824	4,641	5 58	4 47	5 00	7 37	5 57	6 39	13 59	7 51	10 27

TABLE IX.—*Continued.*

Counties.	No. Scholars included in School Census in—		No. Pupils Enrolled in—		Per Capita Cost for Instruction, Based upon School Census in—			Per Capita Cost for Instruction, Based upon the Enrollment in—			Total Expense Per Capita during Year, based upon Enrollment in—		
	Graded School Districts.	Ungraded School Districts.	Graded School Districts.	Ungraded School Districts.	Graded School Districts.	Ungraded School Districts.	All the Districts.	Graded School Districts.	Ungraded School Districts.	All the Districts.	Graded School Districts.	Ungraded School Districts.	All the Districts.
Ionia	3,322	6,699	2,866	5,104	$7 10	$4 29	$5 23	$8 23	$5 63	$6 58	$12 43	$9 15	$10 33
Iosco	2,615	646	1,383	454	3 72	6 06	4 12	7 04	8 63	7 32	12 98	9 65	12 14
Iron	102	577	115	429	10 78	7 30	7 83	9 56	9 82	9 77	13 04	18 09	17 95
Isabella	818	4,708	676	3,432	5 25	4 26	4 41	6 36	5 85	5 93	12 99	8 75	9 20
Jackson	6,452	6,224	5,030	4,903	6 76	4 88	5 83	8 67	6 19	7 45	10 94	11 77	11 36
Kalamazoo	5,515	5,128	3,830	3,887	6 09	5 23	5 71	8 78	6 98	7 87	18 68	9 30	13 96
Kalkaska	201	1,323	172	1,095	10 64	7 52	7 90	12 44	9 08	9 54	25 96	14 02	15 64
Kent	16,786	9,656	11,475	7,383	6 56	4 37	5 76	9 77	5 72	8 08	18 03	7 48	13 90
Keweenaw	971	210	596	181	6 10	10 90	6 54	8 94	12 10	9 68	11 16	16 09	12 31
Lake	873	1,176	658	936	5 10	6 42	5 82	6 80	7 85	7 55	12 70	11 81	12 17
Lapeer	2,984	7,231	2,544	5,357	5 39	3 78	4 35	6 31	5 11	5 62	8 31	6 79	7 28
Leelanaw	305	2,229	234	1,490	4 57	3 92	4 04	5 95	5 94	5 94	7 09	8 70	8 53
Lenawee	5,272	8,890	4,343	7,015	6 55	4 50	5 26	7 95	5 76	6 56	12 00	8 11	9 60
Livingston	1,615	4,916	1,487	4,055	6 21	4 62	5 01	6 14	5 60	5 93	10 75	7 83	8 61
Mackinac	895	567	608	434	4 37	6 90	5 35	6 45	9 02	7 51	11 52	12 73	13 20
Macomb	3,736	6,993	2,585	3,935	4 66	3 23	3 73	6 75	5 74	6 11	11 59	8 36	9 52
Manistee	3,915	2,512	2,685	1,704	5 04	4 60	4 85	7 35	6 84	7 11	16 40	10 50	14 11
Manitou	193	337	47	246	1 88	2 92	2 54	7 76	4 00	4 60	7 76	4 58	5 09
Marquette	8,173	901	5,429	577	5 33	9 01	5 70	8 01	14 07	8 61	16 69	21 08	17 11
Mason	1,831	2,378	1,350	1,780	8 21	5 54	5 74	6 05	7 47	7 75	16 38	11 34	13 80
Mecosta	2,104	4,529	1,644	3,309	5 24	4 50	4 59	6 71	6 17	6 35	14 39	10 68	11 39
Menominee	3,466	2,344	2,222	1,608	5 27	5 12	5 21	8 23	7 47	7 91	11 59	16 73	16 38
Midland	821	2,357	691	1,778	5 90	4 97	5 21	7 00	6 59	6 71	13 95	10 13	11 20
Missaukee	.....	955	.....	775	.....	9 91	9 91	.....	12 21	12 21	.....	20 69	20 69
Monroe	2,868	8,840	1,516	6,190	3 53	3 14	3 24	6 67	4 49	4 92	6 81	5 92	6 98
Montcalm	3,974	6,787	3,384	5,078	5 77	3 80	4 52	6 78	5 08	5 75	9 74	4 84	8 01
Montmorency	.....	319	.....	270	.....	12 15	12 15	.....	14 38	14 38	.....	28 80	28 80
Muskegon	8,868	3,752	5,985	2,758	4 98	4 79	4 68	7 36	6 49	6 87	11 72	8 20	10 60
Newaygo	1,300	4,648	966	3,589	4 17	4 59	2 98	5 62	5 94	3 90	12 65	9 18	9 63
Oakland	4,151	7,379	3,578	5,851	6 72	4 95	5 59	7 80	6 38	6 83	11 24	8 52	9 55
Oceana	890	3,833	762	3,016	6 19	4 58	4 67	7 23	5 81	5 84	6 19	8 78	8 26
Ogemaw	251	895	186	797	3 78	8 68	7 61	5 10	9 76	8 88	7 26	16 14	14 44
Ontonagon	828	309	650	149	10 43	5 82	9 19	13 30	13 43	13 07	16 17	16 92	16 28
Osceola	1,380	3,579	1,081	2,585	4 81	4 87	4 85	6 20	6 74	6 57	13 41	10 47	11 39
Oscoda	.....	428	.....	383	.....	4 79	4 79	.....	5 36	5 36	.....	12 79	12 79
Otsego	244	1,000	195	778	4 83	7 52	6 99	6 05	9 66	8 94	6 05	16 00	14 09
Ottawa	6,530	6,312	4,890	4,589	4 41	4 08	4 04	5 80	6 12	5 47	8 82	7 16	8 01

TABLE IX.—*Continued.*

Counties.	No. Scholars included in School Census in—		No. Pupils Enrolled in—		Per Capita Cost for Instruction, Based upon School Census in—			Per Capita Cost for Instruction, Based upon the Enrollment in—			Total Expense, Per Capita during Year, based upon Enrollment in—		
	Graded School Districts.	Ungraded School Districts.	Graded School Districts.	Ungraded School Districts.	Graded School Districts.	Ungraded School Districts.	All the Districts.	Graded School Districts.	Ungraded School Districts.	All the Districts.	Graded School Districts.	Ungraded School Districts.	All the Districts.
Presque Isle....	129	1,223	120	656	$7 48	$2 98	$3 41	$8 08	$5 56	$5 95	$20 12	$9 52	$11 41
Roscommon....	.....	431	.....	270	.....	5 75	5 75	.....	9 19	9 19	.....	16 03	16 03
Saginaw.....	14,899	9,516	8,391	6,035	4 61	3 43	4 19	8 37	5 44	7 09	18 61	7 42	14 03
St. Clair.....	7,140	10,159	4,283	6,782	3 70	2 95	3 26	6 10	4 42	5 10	11 56	6 01	8 16
St. Joseph.....	3,026	4,681	2,801	3,692	7 80	4 92	6 05	8 43	8 95	7 34	13 64	9 39	11 22
Sanilac.....	2,873	9,192	2,061	6,462	3 37	3 03	3 11	4 70	4 32	4 41	7 39	6 91	7 03
Schoolcraft	.....	848	.....	580	.....	6 58	6 58	.....	9 63	9 63	.....	15 22	15 22
Shiawassee.....	2,855	6,165	2,243	4,839	6 56	4 03	4 83	8 40	5 14	6 16	15 52	7 19	9 84
Tuscola.....	2,758	7,924	2,114	5,756	4 79	3 47	3 81	6 79	4 96	5 18	11 06	6 58	7 80
Van Buren.....	3,081	6,385	2,769	5,019	6 55	4 44	5 12	7 25	5 66	6 24	12 39	7 63	9 33
Washtenaw....	6,447	6,736	4,371	4,905	7 38	4 85	6 09	10 87	6 66	8 65	16 19	8 85	12 31
Wayne.....	61,834	10,007	22,193	6,363	3 52	3 27	3 50	9 81	5 14	8 81	17 57	7 46	15 31
Wexford	1,356	1,841	910	1,537	4 73	7 48	6 31	7 05	8 96	8 25	16 15	10 64	14 71

TABLE X.

Statistics of Township Libraries as reported by School Inspectors for the year ending September 6, 1886.

Counties.	No. of Townships using Library Moneys for General School Purposes.	No. of Townships Forfeiting Library Moneys.	No. of Townships Maintaining Libraries.	No. of Volumes added to Township Libraries during year.	Whole No. of Volumes in Township Libraries.	Amount Paid for Books and care of Township Libraries.	Amount of Taxes voted for Township Libraries.	Amount of Fines, etc., received from County Treasurers for Township Libraries.
Totals	449	237	505	11,592	123,552	$16,263 39	$4,524 20	$9,296 95
Alcona	.....	2	2	.....	418	$100 00	.....	$28 90
Alger	.....	1	2	.....	335	25 00	.....	31 15
Allegan	9	6	9	328	2,600	304 14	$100 00	257 06
Alpena	2	2	3	5	226	19 25	.....	5 40
Antrim	1	1	12	114	1,745	183 92	.....	60 00
Arenac	5	6	.....	.....	.....	.....	.....	.....
Baraga	1	.....	4	.....	585	24 00	.....	.....
Barry	9	3	4	21	1,157	31 50	.....	46 32
Bay	2	2	8	118	2,194	165 77	.....	151 32
Benzie	1	.....	11	195	1,365	264 78	25 00	125 91
Berrien	11	2	10	199	3,616	409 00	250 00	151 48
Branch	10	2	4	31	1,224	129 02	150 00	85 16
Calhoun	14	3	3	96	669	82 95	50 00	59 28
Cass	11	.....	5	132	1,832	128 19	.....	89 98
Charlevoix	5	4	6	328	1,279	382 40	482 90	28 34
Cheboygan	8	.....	8	70	813	195 82	.....	112 36
Chippewa	2	2	5	346	490	305 00	.....	481 98
Clare	1	5	6	232	949	244 05	.....	121 05
Clinton	13	2	3	18	518	18 65	.....	46 16
Crawford	2	2	5	293	841	412 10	144 10	95
Delta	3	5	2	.....	369	.....	.....	.....
Eaton	7	.....	9	319	3,073	285 22	50 00	125 19
Emmet	1	4	7	7	987	53 50	225 00	.....
Genesee	15	2	1	24	315	37 50	.....	36 38
Gladwin	.....	6	2	70	170	90 95	26 22	.....
Grand Traverse	.....	.....	13	640	2,996	536 81	25 00	670 53
Gratiot	10	5	3	25	305	82 15	.....	172 05
Hillsdale	15	2	1	.....	150	12 00	.....	43 35
Houghton	2	1	5	100	3,674	353 81	.....	418 33
Huron	9	6	12	205	1,367	216 89	.....	55 95
Ingham	14	2	1	.....	40	.....	.....	.....

TABLE X.—*Continued.*

Counties.	No. of Townships using Library Moneys for General School Purposes.	No. of Townships Forfeiting Library Moneys.	No. of Townships Maintaining Libraries.	No. of Volumes added to Township Libraries during year.	Whole No. of Volumes in Township Libraries.	Amount Paid for Books and care of Township Libraries.	Amount of Taxes voted for Township Libraries.	Amount of Fines, etc., received from County Treasurers for Township Libraries.
Ionia	15	1	4	14	266	$2 00	.....	$110 56
Iosco	.....	5	6	14	1,337	101 00	$10 00	245 79
Iron	2	2	.....	.....	.....	.....	.....	.....
Isabella	5	2	10	121	766	232 00	.....	127 07
Jackson	13	4	2	48	980	57 42	.....	37 42
Kalamazoo	12	1	4	29	1,072	106 55	.....	142 98
Kalkaska	4	2	6	72	236	58 05	.....	39 31
Kent	11	5	9	359	3,376	437 00	25 00	372 35
Keweenaw	2	2	4	.....	1,642	25 00	.....	109 56
Lake	1	.....	12	514	1,683	620 09	195 00	100 00
Lapeer	10	3	6	39	822	112 46	.....	23 83
Leelanaw	.....	.....	11	50	1,786	70 92	.....	57 28
Lenawee	9	5	8	244	5,466	259 89	.....	278 54
Livingston	10	3	3	.....	1,252	42 00	.....	15 09
Mackinac	2	4	4	100	911	157 25	.....	.....
Macomb	4	4	6	40	1,477	87 78	.....	45 65
Manistee	2	2	8	254	2,002	282 20	.....	256 33
Manitou	2	2	1	.....	52	5 00	.....	.....
Marquette	3	3	7	342	2,149	449 42	.....	87 83
Mason	3	.....	12	142	3,287	245 88	63 78	95 82
Mecosta	7	2	7	181	1,182	243 87	.....	62 19
Menominee	1	4	4	397	2,761	817 11	600 00	414 36
Midland	2	5	8	17	568	44 37	.....	3 23
Missaukee	1	3	9	229	878	373 89	125 00	46 57
Monroe	4	.....	11	130	2,462	161 11	10 00	116 31
Montcalm	8	2	12	217	1,799	214 06	85 00	207 73
Montmorency	.....	5	1	.....	140	.....	.....	15 06
Muskegon	2	2	14	505	3,347	730 16	100 00	298 57
Newaygo	4	3	17	319	2,011	341 57	50 00	171 26
Oakland	15	6	5	203	2,239	224 40	50 00	150 08
Oceana	.....	1	15	240	3,077	408 08	240 00	149 27
Ogemaw	4	9	2	.....	150	.....	.....	.....
Ontonagon	2	5	.....	.....	.....	.....	.....	.....
Osceola	3	2	11	49	1,921	228 08	.....	57 15
Oscoda	.....	8	1	94	322	173 67	150 00	.....
Otsego	2	1	5	98	1,392	165 28	120 00	179 24
Ottawa	5	.....	11	397	3,310	339 77	.....	309 17

TABLE X.—*Continued.*

Counties.	No. of Townships using Library Moneys for General School Purposes.	No. of Townships Forfeiting Library Moneys.	No. of Townships Maintaining Libraries.	No. of Volumes added to Township Libraries during year.	Whole No. of Volumes in Township Libraries.	Amount paid for Books and care of Township Libraries.	Amount of Taxes voted for Township Libraries.	Amount of Fines, etc., received from County Treasurers for Township Libraries.
Presque Isle	4	4	2	4	171	$6 00	.....	.....
Roscommon	3	1	2	.....	364	81 50	.....	.....
Saginaw	11	5	11	308	4,147	433 75	$25 00	$191 34
St. Clair	8	6	9	118	3,022	175 88	.....	298 47
St. Joseph	12	.....	4	600	5,004	983 33	1,050 00	20 63
Sanilac	11	5	10	81	1,034	79 77	.....	.....
Schoolcraft	2	2	1	.....	106	25 00	.....	.....
Shiawassee	10	5	2	80	738	105 00	75 00	37 36
Tuscola	7	4	12	252	2,190	322 75	.....	167 22
Van Buren	8	2	8	365	2,996	535 69	.....	318 30
Washtenaw	12	5	5	69	1,434	134 03	.....	78 05
Wayne	8	9	5	126	6,452	266 23	.....	392 38
Wexford	.....	3	12	215	1,471	212 76	22 20	63 02

TABLE XI.

Statistics of District Libraries, as Reported by School Inspectors, for the Year ending September 6, 1886.

Counties.	No. Districts of less than 100 children reporting Libraries.	No. of Volumes reported in such Libraries.	No. Districts of 100 or more children maintaining Libraries.	No. of Volumes added to last-mentioned Libraries during year.	Whole No. Volumes in such Libraries.	Amount paid for support of such Libraries.	Amount of Fines, etc., received from County Treasurers for such Libraries.
Totals	883	48,969	295	16,999	223,358	$37,856 75	$20,981 89
Alcona							
Alger							
Allegan	45	1,730	17	227	1,840	$205 14	$160 89
Alpena			4	179	2,350	527 84	72 74
Antrim	3	55	1	38	160		
Arenac	5	202	1	1	44		
Baraga	2	217	2	2	371		
Barry	7	219	3	150	1,302	183 55	162 79
Bay			5	1,167	25,603	90 25	27 00
Benzie							
Berrien	21	531	8	158	1,786	121 70	98 33
Branch	23	886	2	75	252	54 74	13 37
Calhoun	42	2,026	5	456	8,945	564 61	245 90
Cass	33	1,425	4	30	910	76 49	63 33
Charlevoix							
Cheboygan	1	55	1		14		6 98
Chippewa			1		17		
Clare							
Clinton	12	165	6	21	264	69 94	117 65
Crawford	3	28					
Delta			1	206	801	195 87	50 00
Eaton	2	32	1	42	297	60 61	49 38
Emmet	5	5	1		25		
Genesee	22	758	6	732	6,662	1,068 24	216 22
Gladwin							
Grand Traverse			1	75	300	340 00	811 16
Gratiot	10	312	5	170	824	143 15	206 81
Hillsdale	32	814	3	29	439	31 90	202 54
Houghton			5	119	2,082	163 81	156 67

TABLE XI.—*Continued.*

Counties.	No. Districts of less than 100 children reporting Libraries.	No. of Volumes reported in such Libraries.	No. Districts of 100 or more children maintaining Libraries.	No. of Volumes added to last-mentioned Libraries during year.	Whole No. Volumes in such Libraries.	Amount paid for support of such Libraries.	Amount of Fines, etc., received from County Treasurers for such Libraries.
Huron	.....	.....	11	32	911	$71 55	$34 40
Ingham	10	346	3	1,447	5,248	1,912 55	148 57
Ionia	3	93	4	149	751	70 00	128 19
Iosco	2	27	2	10	600	52 55	109 79
Iron	.....	.....	.....	.....	.....	.....	.....
Isabella	4	67	2	.....	250	.....	.....
Jackson	37	1,911	10	39	1,589	217 85	153 15
Kalamazoo	60	3,201	5	1,517	13,157	1,824 07	347 50
Kalkaska	8	428	1	.....	183	.....	23 80
Kent	19	569	9	1,429	20,496	6,288 89	1,738 29
Keweenaw	2	1,275	1	.....	350	.....	.....
Lake	.....	.....	1	70	70	.....	.....
Lapeer	19	657	6	223	1,614	123 30	95 27
Leelanaw	.....	.....	1	.....	59	6 10	.....
Lenawee	69	3,415	12	730	8,156	670 40	341 04
Livingston	9	268	1	34	112	78 42	14 82
Mackinac	.....	.....	2	2	603	52 50	.....
Macomb	10	276	11	218	3,033	326 25	105 10
Manistee	6	354	3	.....	300	562 37	495 75
Manitou	2	92	.....	.....	.....	.....	.....
Marquette	1	248	2	.....	2,017	100 00	.....
Mason	4	102	1	150	1,900	377 39	329 66
Mecosta	9	470	2	.....	1,674	241 73	73 08
Menominee	2	120	1	.....	56	.....	.....
Midland	8	426	3	172	1,144	201 55	200 00
Missaukee	4	132	.....	.....	.....	.....	.....
Monroe	5	91	2	200	989	502 83	72 49
Montcalm	6	149	6	5	320	20 00	91 40
Montmorency	1	30	.....	.....	.....	.....	.....
Muskegon	2	136	4	36	4,136	691 70	395 09
Newaygo	4	389	1	.....	6	.....	.....
Oakland	30	1,416	4	323	1,412	288 34	130 55
Oceana	4	271	2	2	76	.....	14 00
Ogemaw	.....	.....	.....	.....	.....	.....	.....
Ontonagon	3	314	2	.....	1,412	.....	.....

TABLE XI.—*Continued.*

Counties.	No. Districts of less than 100 children reporting Libraries.	No. of Volumes reported in such Libraries.	No. Districts of 100 or more children maintaining Libraries.	No. of Volumes added to last-mentioned Libraries during year.	Whole No. Volumes in such Libraries.	Amount paid for support of such Libraries.	Amount of Fines, etc., received from County Treasurers for such Libraries.
Osceola	2	41	2	72	468	$50 00	.....
Oscoda	.....	.....	.....	.....	.....	.....	.....
Otsego	2	68	.....	.....	.....	.....	.....
Ottawa	17	913	11	95	2,318	219 14	$211 72
Presque Isle	9	446	1	51	90	64 00	10 00
Roscommon	.....	.....	.....	.....	.....	.....	.....
Saginaw	32	1,654	14	1,241	12,746	2,080 73	702 26
St. Clair	27	932	9	470	2,112	437 11	291 14
St. Joseph	51	2,509	3	55	1,029	49 00	4 03
Sanilac	8	287	6	8	342	8 43	51 94
Schoolcraft	.....	.....	.....	.....	.....	.....	.....
Shiawassee	11	256	3	25	641	106 41	152 56
Tuscola	9	281	8	119	781	89 61	97 52
Van Buren	14	400	4	31	341	39 41	298 34
Washtenaw	10	259	6	389	4,355	760 77	602 83
Wayne	79	14,160	29	3,638	69,373	15,275 07	10,796 99
Wexford	1	30	1	50	350	98 89	58 87

TABLE XII.

Branches of Instruction, as reported by School Inspectors for the Year ending September 6, 1886.

Counties.	Number of Districts in which Instruction is given in												
	Orthography.	Reading.	Writing.	Arithmetic.	Geography.	English Grammar.	U. S. History.	Civil Government.	Algebra.	Geometry.	Physiology.	Natural Philosophy.	Botany.
Totals	4,900	6,616	6,240	6,598	6,531	6,288	5,871	3,333	2,117	610	2,852	708	516
Alcona	11	11	12	12	12	10	9	7	5	4	4	1	.....
Alger	3	5	5	5	5	3	4	1	1	.....	2	.....	.....
Allegan	125	180	165	175	172	171	152	72	41	10	65	13	11
Alpena	20	21	21	21	21	17	11	5	1	1	3	2	1
Antrim	49	64	60	64	64	61	57	33	7	5	27	4	2
Arenac	16	21	20	22	22	22	21	8	2	.....	11	.....	1
Baraga	6	8	9	9	8	8	5	3	3	2	3	.....	.....
Barry	92	143	126	145	139	142	126	82	58	3	58	7	3
Bay	36	43	39	41	41	41	37	17	6	3	17	4	2
Benzie	33	38	37	37	37	33	30	15	5	1	21	2	1
Berrien	136	148	142	147	145	142	131	58	64	7	71	18	8
Branch	75	111	89	116	112	115	104	56	42	10	51	10	3
Calhoun	110	155	142	155	155	150	135	84	84	12	58	18	14
Cass	74	111	110	113	113	111	106	63	44	5	61	7	4
Charlevoix	62	64	64	62	62	61	55	36	6	1	29	1	.....
Cheboygan	47	47	47	47	47	43	40	29	18	16	27	15	15
Chippewa	35	36	36	36	36	31	26	12	1	1	14	1	1
Clare	23	32	32	32	31	26	27	12	6	4	7	1	.....
Clinton	79	122	112	122	121	120	111	64	26	6	53	7	5
Crawford	28	35	34	35	33	28	26	16	4	.....	17	1	.....
Delta	21	27	25	27	27	21	19	6	1	1	5	1	1
Eaton	76	137	114	135	134	134	119	62	34	4	48	15	4
Emmet	45	53	51	55	54	50	45	24	7	4	14	1	2
Genesee	104	156	162	155	158	155	153	101	64	21	82	22	17
Gladwin	17	20	18	18	18	17	15	6	1	.....	5	.....	.....
GrandTraverse	48	56	54	55	54	54	47	22	13	3	28	5	4
Gratiot	95	123	117	123	123	117	118	86	30	21	60	21	19
Hillsdale	106	165	154	168	166	164	151	67	86	9	67	10	9

TABLE XII.—*Continued.*

Counties.	Number of Districts in which Instruction is given in												
	Orthography.	Reading.	Writing.	Arithmetic.	Geography.	English Grammar.	U. S. History.	Civil Government.	Algebra.	Geometry.	Physiology.	Natural Philosophy.	Botany.
Houghton	15	17	14	16	15	17	13	6	7	4	8	5	5
Huron	77	101	99	101	100	90	89	62	28	18	43	20	16
Ingham	71	126	115	125	123	122	121	67	35	10	55	10	10
Ionia	74	127	110	129	125	122	112	64	40	15	44	14	14
Iosco	17	21	20	22	22	18	17	7	5	4	11	4	4
Iron	6	6	6	6	6	6	6	4	3	1	3	.....	.....
Isabella	86	101	100	98	98	97	92	58	23	10	48	11	8
Jackson	96	139	131	136	135	134	129	82	78	13	80	15	8
Kalamazoo	110	131	133	136	135	133	125	74	56	7	66	9	3
Kalkaska	38	51	48	50	51	46	44	25	12	7	26	7	6
Kent	145	204	191	202	200	197	183	106	78	20	102	24	15
Keweenaw	10	10	10	10	10	10	8	4	5	.....	4	1	1
Lake	44	45	43	46	46	41	39	34	13	12	29	14	14
Lapeer	94	135	134	135	135	131	130	66	43	9	51	14	7
Leelanaw	47	52	48	52	49	42	41	14	7	.....	14	2	1
Lenawee	128	194	182	193	192	189	184	123	83	34	89	30	25
Livingston	89	131	130	131	130	128	120	87	64	10	57	7	6
Mackinac	20	25	24	25	24	17	17	4	2	.....	5	2	.....
Macomb	81	112	110	111	111	106	97	53	43	15	64	17	13
Manistee	50	51	48	50	50	48	47	29	12	8	32	8	7
Manitou	6	6	5	5	5	5	2	1	.....	.....	.....	.....	.....
Marquette	30	35	34	33	33	28	26	12	6	4	13	4	4
Mason	45	51	46	53	52	43	41	22	9	6	20	6	6
Mecosta	76	93	92	93	94	90	83	38	13	4	39	7	7
Menominee	34	35	35	35	35	33	21	9	4	2	14	3	1
Midland	43	55	54	53	53	48	48	21	14	4	20	7	4
Missaukee	31	36	32	37	35	29	27	13	1	.....	12	.....	.....
Monroe	102	138	126	138	136	132	131	68	43	22	54	22	22
Montcalm	71	124	101	124	119	114	109	66	40	9	50	7	5
Montmorency	14	20	20	20	20	17	16	15	3	.....	8	1	.....
Muskegon	80	92	87	92	90	89	77	47	28	6	31	18	6
Newaygo	87	101	92	101	100	99	91	47	26	2	43	4	1
Oakland	144	207	199	205	206	200	179	106	87	13	73	22	8
Oceana	70	86	84	86	86	80	78	46	21	4	29	5	4
Ogemaw	22	37	37	37	37	35	31	22	6	2	14	3	2

TABLE XII.—*Continued.*

Counties.	Number of Districts in which Instruction is given in												
	Orthography.	Reading.	Writing.	Arithmetic.	Geography.	English Grammar.	U. S. History.	Civil Government.	Algebra.	Geometry.	Physiology.	Natural Philosophy.	Botany.
Ontonagon	10	10	10	10	10	9	8	5	7	3	7	2	.....
Osceola	70	85	79	85	83	79	69	42	15	8	39	9	8
Oscoda	26	27	27	27	26	25	22	12	5	.....	5	1	.....
Otsego	27	36	35	36	35	32	27	19	8	7	18	7	7
Ottawa	95	109	105	108	108	107	103	62	59	29	69	35	30
Presque Isle	26	28	27	28	28	23	24	12	5	.....	6	3	1
Roscommon	7	9	9	9	8	6	8	3	1	1	1	1	1
Saginaw	115	146	136	145	143	136	131	61	26	9	59	11	10
St. Clair	117	146	141	146	146	140	135	73	44	13	64	5	3
St. Joseph	66	110	104	110	111	108	96	61	36	9	42	9	5
Sanilac	109	129	124	129	128	126	123	97	63	23	73	19	18
Schoolcraft	7	12	10	11	11	7	6	4	2	1	3	2	1
Shiawassee	78	113	101	107	106	105	105	71	44	18	63	25	22
Tuscola	98	134	130	135	134	129	125	69	45	21	67	26	18
Van Buren	110	145	132	143	138	134	123	61	41	6	47	8	7
Washtenaw	77	143	141	145	144	140	126	39	64	18	48	16	14
Wayne	92	146	137	145	146	144	133	74	46	11	42	15	9
Wexford	55	61	55	61	58	55	53	19	8	4	40	4	2

TABLE XIII.

Private and Select Schools and School Apparatus, as Reported by School Inspectors for the year ending September 6, 1886.

Counties.	Private and Select Schools.				Apparatus.		
	No. of Schools.	No. of teachers employed.		Estimated number of pupils.	No. of districts reporting dictionaries.	No. of districts reporting maps.	No. of districts reporting globes.
		Men.	Women.				
Totals	305	286	441	29,501	3,323	2,036	1,654
Alcona					6	9	4
Alger					4	5	4
Allegan	3	2	1	101	90	35	40
Alpena	8	3	5	1,000	5	15	7
Antrim	1		1	40	25	23	16
Arenac					11	12	13
Baraga					7	4	5
Barry					92	15	24
Bay	12	9	12	1,168	18	21	13
Benzie					13	14	12
Berrien	8	4	17	258	100	35	43
Branch	1	2	15	296	48	22	19
Calhoun	7	10	14	787	116	41	25
Cass					92	25	30
Charlevoix	1		2	82	23	10	5
Cheboygan	1		5	200	14	16	11
Chippewa	4	2	6	170	9	17	10
Clare	1		1	44	8	7	6
Clinton	3	1	2	68	73	27	33
Crawford					11	10	6
Delta	2		8	494	13	15	9
Eaton	3	14	5	378	49	9	14
Emmet	2	1	1	32	7	6	3
Genesee	7	10	19	573	117	50	23
Gladwin					11	14	15
Grand Traverse	3	2	4	130	28	31	21
Gratiot					56	22	24
Hillsdale	1		1	25	100	36	35
Houghton	4	1	15	860	12	13	12
Huron	11	6	7	575	22	50	32
Ingham	5	5	6	380	66	16	28

TABLE XIII.—*Continued.*

Counties.	Private and Select Schools.				Apparatus.		
	No. of Schools.	No. of teachers employed.		Estimated number of pupils.	No. of districts reporting dictionaries.	No. of districts reporting maps.	No. of districts reporting globes.
		Men.	Women.				
Ionia	4	3	3	200	72	40	26
Iosco	.....	.....	.....	.....	10	16	9
Iron	.....	.....	.....	.....	6	5	4
Isabella	1	.....	1	20	28	19	15
Jackson	5	4	10	675	71	53	31
Kalamazoo	9	6	11	405	90	34	28
Kalkaska	.....	.....	.....	.....	23	26	14
Kent	3	3	1	270	141	77	64
Keweenaw	1	1	.....	2	8	9	8
Lake	.....	.....	.....	.....	20	15	12
Lapeer	3	1	2	73	54	25	27
Leelanaw	.....	.....	.....	.....	13	17	10
Lenawee	9	7	11	643	129	71	52
Livingston	1	1	.....	22	44	15	13
Mackinac	2	.....	3	71	3	7	4
Macomb	19	17	7	1,302	63	38	30
Manistee	4	3	9	765	26	33	27
Manitou	.....	.....	.....	.....	.....	2	2
Marquette	4	.....	13	370	12	27	20
Mason	3	3	3	112	31	29	27
Mecosta	5	2	5	285	41	34	37
Menominee	1	.....	4	175	22	22	23
Midland	.....	.....	.....	.....	18	24	13
Missaukee	.....	.....	.....	.....	13	19	12
Monroe	18	13	9	1,040	48	29	24
Montcalm	1	.....	1	8	65	40	37
Montmorency	.....	.....	.....	.....	5	7	4
Muskegon	1	1	.....	65	36	29	30
Newaygo	1	3	.....	37	39	24	28
Oakland	2	6	1	104	106	42	34
Oceana	1	2	.....	35	46	34	33
Ogemaw	.....	.....	.....	.....	17	21	10
Ontonagon	.....	.....	.....	.....	6	7	6
Osceola	3	2	1	90	33	25	19
Oscoda	.....	.....	.....	.....	2	1	1
Otsego	.....	.....	.....	.....	13	12	12
Ottawa	3	2	1	240	79	52	43

TABLE XIII.—*Continued.*

Counties.	Private and Select Schools.				Apparatus.		
	No. of Schools.	No. of teachers employed.		Estimated number of pupils.	No. of districts reporting dictionaries.	No. of districts reporting maps.	No. of districts reporting globes.
		Men.	Women.				
Presque Isle	2	2	.....	200	12	17	12
Roscommon	.....	.....	.....	.....	1	4	3
Saginaw	18	13	14	1,695	79	72	50
St. Clair	12	9	11	663	57	36	32
St. Joseph	4	5	3	81	58	27	24
Sanilac	.....	.....	.....	.....	40	43	26
Schoolcraft	.....	.....	.....	.....	5	5	2
Shiawassee	1	.....	1	10	54	32	22
Tuscola	5	5	.....	194	55	31	25
Van Buren	1	.....	1	15	86	30	33
Washtenaw	11	10	7	660	81	47	31
Wayne	58	90	160	11,303	84	65	42
Wexford	1	.....	1	10	32	22	22

TABLE XIV.

Examination and Certification of Teachers, as reported by Secretaries of Boards of School Examiners for the year ending September 6, 1886.

Counties.	No. of Public Examinations.	Whole No. of Applicants for Regular Certificates.	Whole No. of Applicants for Secretary's Special Certificates.	Number of Applicants Receiving Certificates.				No. Licensed without Experience in Teaching.	No. of Applicants having received some Normal Instruction.	No. of Applicants having attended Institute during the year.	No. of Teachers holding State Certificates.	No. of Teachers holding Normal School Certificates.	No. of legally qualified Teachers in the County.	No. making Teaching a permanent occupation.	No. of Teachers' Certificates suspended.	No. of Teachers' Certificates annulled.
				First.	Second.	Third.	Special.									
Totals.....	449	15,114	1,854	193	512	9,322	1,573	2,394	3,484	5,543	62	226	11,122	3,223	3	3
Alcona.....	3	35	16	2	1	20	12	8	5	8	.....	1	25	5	....	....
Alger.....	3	8	1	....	....	8	1	4	.....	2	.....	2	10	8	....	....
Allegan.....	9	438	20	7	35	376	16	84	213	92	5	3	272	21	....	....
Alpena.....	2	50	15	....	2	35	13	3	3	24	.....	.....	37	27	....	....
Antrim.....	4	143	17	2	3	81	17	21	50	32	1	2	94	50	....	....
Arenac.....	4	28	6	2	2	24	6	2	.....	12	.....	.....	23	20	....	....
Baraga.....	1	10	12	4	....	6	12	2	3	5	.....	.....	10	2	....	1
Barry.....	8	180	21	2	4	100	13	27	35	59	3	2	278	77	1	....
Bay.....	4	.....	21	....	4	81	17	35	10	10	.....	.....	87	80	....	....
Benzie.....	4	85	14	....	4	56	14	14	22	58	.....	.....	58	40	....	1
Berrien.....	8	363	35	2	7	222	33	42	99	126	2	8	241	.....	....	....
Branch.....	7	558	33	8	42	192	26	56	93	153	.....	7	258	.....	....	....
Calhoun.....	6	361	31	7	10	274	30	78	44	80	.....	3	301	.....	....	....
Cass.....	7	479	55	....	4	179	50	20	350	200	1	6	146	81	....	....
Charlevoix....	5	113	14	3	5	87	14	27	24	40	.....	.....	95	.....	....	....
Cheboygan....	5	60	35	2	1	45	30	10	13	39	.....	2	.....	25	....	....
Chippewa.....	4	56	31	....	1	22	25	6	11	24	2	.....	44	40	....	....
Clare *.....	....	.....	.....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	....
Clinton.....	9	400	38	1	17	215	30	48	15	137	1	5	249	112	....	....
Crawford.....	4	46	12	....	3	22	10	5	10	20	2	.....	30	25	....	....
Delta *.....	....	.....	.....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	....
Eaton.....	6	305	30	6	12	207	27	30	83	180	.....	.....	252	.....	....	....
Emmet.....	4	108	40	4	5	60	36	12	14	64	.....	3	78	.....	....	....
Genesee.....	7	278	24	3	9	176	18	42	228	196	1	2	268	81	....	....
Gladwin.....	4	20	16	1	....	8	16	1	.....	6	.....	.....	20	7	....	....
G'd Traverse..	5	145	11	3	17	75	11	20	71	80	2	8	105	15	....	....
Gratiot.....	7	372	14	7	8	187	14	.....	.....	.....	.....	.....	372	.....	....	....
Hillsdale *....	....	.....	.....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	....

TABLE XIV.—*Continued.*

Counties.	No. of Public Examinations.	Whole No. of Applicants for Regular Certificates.	Whole No. of Applicants for Secretary's Special Certificates.	Number of Applicants Receiving Certificates.				No. Licensed without Experience in Teaching.	No. of Applicants having received some Normal Instruction.	No. of Applicants having attended Institute during the year.	No. of Teachers holding State Certificates.	No. of Teachers holding Normal School Certificates.	No. of legally qualified Teachers in the County.	No. making Teaching a permanent Occupation.	No. of Teachers' Certificates suspended.	No. of Teachers' Certificates annulled.
				First.	Second.	Third.	Special.									
Houghton	4	149	18	5	5	74	17	13	32	80	4	17	108	90	....	....
Huron	6	205	46	1	15	104	40	20	15	67	2	2	135	50	....	....
Ingham	8	360	10	3	5	264	8	150	100	175	.....	6	286	.....	....	....
Ionia	9	370	50	....	5	263	44	53	87	119	3	2	290	100	....	....
Iosco	4	50	4	2	....	36	4	9	8	11	.....	6	48	40	....	....
Iron *	....	.....	.....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	....	....	....
Isabella	5	278	19	8	12	99	19	31	47	72	.....	1	119	110	....	....
Isle Royal	....	.....	.....	....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....	....	....
Jackson	9	610	78	9	9	269	55	90	112	217	2	20	311	225	....	....
Kalamazoo	7	409	35	1	11	217	21	34	21	118	1	2	245	.....	....	....
Kalkaska	4	88	8	1	3	37	5	4	13	37	.....	.....	46	.....	....	....
Kent	10	385	103	3	16	257	74	38	72	185	.....	4	402	245	....	....
Keweenaw	3	16	4	...	....	8	4	.....	1	5	.....	1	13	8	....	....
Lake	4	83	13	1	....	78	12	21	17	43	.....	.....	81	4	....	....
Lapeer	4	367	44	3	16	202	32	38	130	90	.....	4	211	80	....	....
Leelanaw	4	90	19	1	....	58	19	5	12	39	.....	.....	59	15	....	....
Lenawee	10	556	12	2	8	330	9	154	53	126	1	4	345	.....	1	....
Livingston	10	250	28	3	3	162	28	48	138	205	4	.....	276	110	....	....
Mackinac	4	63	32	1	4	55	29	20	3	.....	.....	.....	35	30	....	....
Macomb	5	214	30	3	6	134	25	61	12	34	1	6	143	24	....	....
Manistee	4	96	11	....	7	70	11	21	17	48	.....	.....	80	.....	....	....
Manitou	4	7	3	....	2	3	3	2	.....	.....	.....	.....	5	1	....	....
Marquette	3	98	29	1	7	55	25	12	10	38	6	12	111	80	....	....
Mason	4	82	35	....	....	57	23	17	23	32	.....	.....	68	40	....	....
Mecosta	6	165	45	1	6	94	26	23	85	77	1	1	104	53	....	....
Menominee	4	79	13	4	1	65	13	18	22	60	.....	1	70	.....	....	....
Midland	3	122	15	1	4	45	50	3	25	86	.....	5	77	.....	....	....
Missaukee	4	64	23	....	....	38	17	8	7	39	.....	.....	40	27	....	....
Monroe	8	333	22	....	19	179	19	40	80	180	.....	4	225	165	....	....
Montcalm	8	248	91	2	5	179	85	23	21	120	1	5	192	125	....	....
Montmorency	4	19	7	2	....	15	7	.....	.....	5	.....	.....	22	22	....	....
Muskegon	4	115	27	1	10	104	17	41	8	61	2	.....	126	40	....	....
Newaygo	7	256	52	3	3	118	28	34	41	113	1	3	136	.....	....	....
Oakland	11	523	28	9	12	325	27	187	128	194	1	15	374	150	....	....
Oceana	6	203	33	3	3	93	30	9	30	100	.....	.....	115	.....	....	....

TABLE XIV.—*Continued.*

Counties.	No. of Public Examinations.	Whole No. of Applicants for Regular Certificates.	Whole No. of Applicants for Secretary's Special Certificates.	Number of Applicants Receiving Certificates.				No. Licensed without Experience in Teaching.	No. of Applicants having received some Normal Instruction.	No. of Applicants having attended Institute during the year.	No. of Teachers holding State Certificates.	No. of Teachers holding Normal School Certificates.	No. of legally qualified Teachers in the County.	No. making Teaching a Permanent Occupation.	No. of Teachers' Certificates suspended.	No. of Teachers' Certificates annulled.
				First.	Second.	Third.	Special.									
Ogemaw	4	52	24	1	1	60	23	4	7	24	.....	.....	63	31	....	....
Ontonagon	4	20	3	2	1	14	3	8	1	.....	.....	5	25	14	....	....
Osceola	5	174	15	2	1	125	12	34	33	75	.....	3	134	.....	....	....
Oscoda	4	29	12	2	1	22	12	4	1	10	.....	.....	24	.....	....	....
Otsego	4	58	15	1	2	35	12	15	7	9	.....	.....	47	13	....	....
Ottawa	7	303	24	6	7	186	18	30	31	62	.....	3	224	200	1	1
Presque Isle	6	60	21	2	....	15	13	6	5	4	.....	2	19	12	....	....
Roscommon	3	6	16	....	....	3	15	4	11	13	.....	.....	14	12	....	....
Saginaw	8	370	45	1	5	175	39	50	52	200	.....	3	304	125	....	....
St. Clair	9	356	23	....	22	214	3	31	112	.....	1	2	245	.....	....	....
St. Joseph	12	312	.....	5	11	251	.....	78	71	151	3	8	275	127	....	....
Sanilac	10	265	5	2	21	150	5	80	110	115	1	1	200	.....	....	....
Schoolcraft	4	16	1	2	....	14	1	2	3	1	.....	.....	27	6	....	....
Shiawassee	6	352	19	2	6	186	19	55	116	112	1	1	238	8	....	....
Tuscola	7	277	21	2	17	199	21	45	75	136	.....	4	240	.....	....	....
Van Buren	8	340	18	3	10	215	18	.....	.....	.....	4	5	237	.....	....	....
Washtenaw	9	.....	20	3	11	285	20	22	.....	.....	2	7	300	.....	....	....
Wayne	14	404	17	14	1	278	17	95	67	148	.....	7	285	125	....	....
Wexford	5	120	6	1	2	80	5	11	16	60	.....	.....	.....	.....	....	....

* No reports from these counties.

TABLE XV.

Miscellaneous Statistics, as reported by Secretaries of County Boards of School Examiners, for the Year ending September 6, 1886.

Counties.	No. of Meetings of Co. Teachers' Association.	No. of Meetings of Tp. Teachers' Association.	No. of Visits to Schools by Secretaries.	No. of Visits by other Members of Board.	No. of days devoted to Meetings of Co. Board.	Total amount of per diem Compensation received by Examiners.	Amount received by Secretaries for Services as Secretaries.	Amount received as Special Examination Fees.	Amount allowed by Supervisors for Stationery, etc.	Amount of Institute Fees.
Totals	118	49	497	228	1,117	$13,449 50	$12,881 50	$1,242 65	$1,534 05	$9,321 00
Alcona	.....	.....	3	6	6	$96 00	$40 00	.....	$5 00	$15 00
Alger	.....	.....	5	.....	8	84 00	20 00	$1 00	.....	55 00
Allegan	1	.....	4	8	18	216 00	368 00	20 00	10 00	245 00
Alpena	1	.....	2	1	9	84 00	58 00	12 00	4 01	35 50
Antrim	.....	.....	.....	.....	.....	180 00	130 00	15 00	.....	35 50
Arenac	3	.....	.....	.....	6	60 00	45 00	5 00	.....	25 50
Baraga	.....	.....	1	.....	1	16 00	20 00	.....	.....	6 00
Barry	2	7	19	7	18	.....	294 00	9 00	19 35	.....
Bay	4	.....	15	.....	13	156 00	96 00	18 00	11 50	49 00
Benzie	.....	.....	7	14	11	136 00	76 00	9 90	10 00	49 00
Berrien	.....	3	.....	.....	16	192 00	150 00	14 00	29 00	205 00
Branch	.....	.....	4	.....	13	192 00	266 00	24 50	.....	239 50
Calhoun	5	.....	3	26	17	204 00	334 00	23 00	42 00	193 00
Cass	3	.....	.....	.....	22	180 00	234 00	3 00	34 56	165 50
Charlevoix	.....	.....	8	.....	13	156 00	124 00	5 00	.....	54 00
Cheboygan	2	.....	10	10	14	120 60	92 00	.....	.....	.....
Chippewa	.....	.....	18	4	14	132 00	70 00	25 00	26 50	32 00
Clare*	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Clinton	1	3	17	8	40	480 00	269 00	20 00	115 00	175 00
Crawford	.....	.....	10	1	15	180 00	90 00	9 00	18 00	14 50
Delta*	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Eaton	4	.....	2	2	16	192 00	288 00	12 00	60 00	218 00
Emmet	.....	.....	.....	.....	4	48 00	124 00	9 00	3 87	68 00
Genesee	3	.....	2	4	3	204 00	322 00	16 00	45 00	189 00
Gladwin	.....	.....	.....	4	8	96 00	39 00	9 00	.....	6 00
G'd Traverse	3	.....	.....	.....	18	216 00	118 00	11 00	14 35	78 00
Gratiot	2	.....	.....	.....	16	192 00	.....	.....	.....	181 50
Hillsdale*	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

***No reports received from these counties.**

TABLE XV.—*Continued.*

Counties.	No. of Meetings of Co. Teachers' Association.	No. of Meetings of Tp. Teachers' Association.	No. of Visits to Schools by Secretaries.	No. of Visits by other Members of Board.	No. of days devoted to Meetings of Co. Board.	Total amount of per diem Compensation received by Examiners.	Amount received by Secretaries for Services as Secretaries.	Amount received as Special Examination Fees.	Amount allowed by Supervisors for Stationery, etc.	Amount of Institute Fees.
Houghton	1	4	4	5	20	$300 00	$40 00	.....	$28 35	$79 00
Huron	2	.....	12	.....	16	192 00	208 00	$15 00	.....	121 50
Ingham	4	.....	5	5	19	228 00	270 00	8 00	118 17	261 00
Ionia	1	.....	2	.....	16	192 00	290 00	23 00	42 00	216 00
Iosco	.....	.....	2	2	3	128 00	448 00	3 00	10 00	30 50
Iron	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Isabella	3	.....	5	.....	11	130 00	194 00	10 00	20 00	110 50
Isle Royal	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Jackson	.....	.....	12	18	30	228 00	320 00	54 00	21 50	.....
Kalamazoo	4	.....	14	.....	48	191 00	.....	276 00	56 40	228 50
Kalkaska	4	1	4	.....	12	144 00	102 00	8 00	.....	60 50
Kent	4	7	12	8	27	750 00	448 00	64 00	62 50	200 00
Keweenaw	.....	.....	.....	.....	7	84 00	22 00	.....	2 50	8 50
Lake	.....	.....	.....	.....	11	138 00	102 00	2 00	.....	45 00
Lapeer	5	.....	10	7	16	192 00	272 00	11 00	199 44	223 50
Leelanaw	2	.....	2	6	4	150 00	100 00	7 00	.....	49 00
Lenawee	2	.....	12	.....	10	228 00	396 00	6 00	52 50	370 50
Livingston	2	.....	15	10	5	278 00	268 00	18 00	50 00	184 50
Mackinac	.....	.....	3	.....	16	144 00	50 00	20 00	.....	18 00
Macomb	3	20	6	.....	13	156 60	226 00	11 00	24 00	155 00
Manistee	1	.....	15	.....	16	168 00	102 00	8 50	.....	89 00
Manitou	.....	.....	.....	2	7	84 00	10 00	1 00	.....	10 00
Marquette	.....	.....	4	.....	36	144 00	72 00	23 00	29 60	86 00
Mason	4	.....	8	12	10	126 00	102 00	12 00	.....	51 00
Mecosta	3	.....	12	.....	14	168 00	190 00	10 00	.....	99 50
Menominee	1	.....	1	.....	.....	132 00	68 00	13 00	.....	39 50
Midland	.....	.....	.....	.....	11	139 00	112 00	4 00	.....	74 00
Missaukee	.....	.....	1	.....	14	140 00	80 00	.....	6 45	.....
Monroe	.....	.....	18	10	20	248 00	280 00	8 00	16 00	193 50
Montcalm	6	.....	7	.....	2	192 00	270 00	70 00	.....	169 50
Montmorency	.....	.....	.....	.....	11	12 00	42 00	7 00	.....	16 50
Muskegon	.....	.....	8	.....	14	168 00	172 00	3 00	75 00	93 50
Newaygo	.....	.....	18	20	2	360 00	208 00	28 00	.....	97 00
Oakland	5	4	8	8	40	237 00	440 00	1 00	.....	303 50
Oceana	3	.....	9	.....	18	168 00	188 00	8 50	19 44	110 50

TABLE XV.—*Continued.*

Counties.	No. of Meetings of Co. Teachers' Association.	No. of Meetings of Tp. Teachers' Association.	No. of Visits to Schools by Secretaries.	No. of Visits by other Members of Board.	No. of days devoted to Meetings of Co. Board.	Total amount of per diem Compensation received by Examiners.	Amount received by Secretaries for Services as Secretaries.	Amount received as Special Examination Fees.	Amount allowed by Supervisors for Stationery, etc.	Amount of Institute Fees.
Ogemaw	.....	.....	2	2	12	$144 00	$82 00	$24 00	$1 00	$35 00
Ontonagon	.....	.....	.....	1	12	144 00	26 50	3 00	10 70	17 50
Osceola	2	.....	.....	.....	14	4 00	174 00	8 50	.....	100 50
Oscoda	.....	.....	4	8	8	96 00	62 00	.....	.....	21 50
Otsego	.....	.....	.....	.....	12	48 00	70 00	4 00	.....	41 00
Ottawa	6	.....	10	.....	79	312 00	235 00	15 00	15 00	153 00
Presque Isle	2	.....	21	4	8	102 00	50 00	11 00	35 00	23 00
Roscommon	.....	.....	2	1	6	40 00	26 00	14 00	.....	7 00
Saginaw	2	.....	6	.....	32	384 00	300 00	39 00	6 00	231 00
St. Clair	1	.....	5	.....	5	.....	304 00	50 00	.....	.....
St. Joseph	.....	.....		.....	16	192 00	250 00	.....	.....	220 50
Sanilac	.....	.....	8	.....	2	550 50	252 00	5 00	.....	224 10
Schoolcraft	.....	.....	.....	1	6	24 00	38 00	1 00	.....	11 50
Shiawassee	2	.....	.....	.....	15	180 00	244 00	10 75	30 00	199 90
Tuscola	.....	.....	.....	.....	16	186 00	274 00	20 00	17 00	181 50
Van Buren	2	.....	1	.....	1	4 00	334 00	18 00	24 50	230 50
Washtenaw	.....	.....	5	.....	19	228 00	332 00	7 00	13 65	184 00
Wayne	3	.....	56	.....	20	550 00	324 00	17 00	80 00	915 00
Wexford	2	.....	5	3	18	216 00	134 00	4 00	30 00	44 50

TABLE XVI.—*Graded School Statistics, compiled from School Inspectors' Reports for the year ending September 6, 1886.*

Districts.	Counties.	No. of Children between 5 and 20 years in School Census.	Estimated valuation of School Property.	Amount paid for Superintendence and Instruction.	Average Monthly Wages of Teachers.		Total Expenditures.	Total Indebtedness.	No. of Children that attended School during the Year.	No. of days School.	No. of Teachers Employed.		Total Wages of Teachers for the Year.	
					Men.	Women.					Men.	Women.	Men.	Women.
Totals.....443	.....	285,653	$7,725,050 00	$1,464,597 19	$76 73	$38 40	$2,693,203 36	$1,283,152 84	181,759	83,398	601	2,866	$407,137 04	$1,092,919 93
Ada.....	Kent.....	147	$6,000 00	$741 75	$52 00	$30 40	$1,632 39	$1,000 00	149	180	1	1	$468 00	$273 75
Addison.....	Lenawee.....	95	2,000 00	890 00	65 00	11 50	1,120 29	.....	103	180	1	2	585 00	305 00
Adrian.....	Lenawee.....	2,289	104,000 00	14,072 00	121 00	37 00	19,045 91	.....	1,654	198	3	23	3,650 00	10,422 00
Albion.....	Calhoun.....	935	55,000 00	5,823 00	133 00	32 50	16,562 34	12,408 02	843	188	1	15	1,200 00	4,623 00
Algonac.....	St. Clair.....	333	8,500 00	1,440 00	70 00	30 00	1,998 03	.....	229	180	1	3	630 00	810 00
Allegan.....	Allegan.....	845	140,000 00	5,437 00	110 00	36 00	11,325 54	2,500 00	626	190	1	14	1,100 00	4,337 00
Allen.....	Hillsdale.....	126	10,000 00	725 00	55 00	25 00	849 82	.....	90	180	1	1	500 00	225 00
Alloues.....	Keweenaw.....	320	1,800 00	1,173 50	80 00	40 00	1,427 39	.....	183	150	1	3	563 50	610 00
Alma.....	Gratiot.....	528	25,000 00	2,350 00	80 00	31 00	23,198 46	17,500 00	412	200	1	5	800 00	1,550 00
Almont.....	Lapeer.....	320	15,000 00	1,726 25	80 00	30 80	3,900 34	8,500 00	270	200	1	4	800 00	926 25
Alpena.....	Alpena.....	2,947	40,000 00	11,322 00	107 50	39 80	19,716 60	.....	1,386	198	2	23	2,150 00	9,172 00
Ann Arbor.....	Washtenaw...	2,916	160,000 00	23,205 30	150 00	40 50	35,064 34	13,000 00	1,905	198	6	37	8,286 00	14,919 30
Armada.....	Macomb.....	234	5,500 00	1,901 00	100 00	28 60	2,017 51	71 73	211	196	1	4	1,000 00	801 00
Athens.....	Calhoun.....	125	4,000 00	980 00	63 00	30 00	1,147 75	.....	100	200	1	1	630 00	300 00
Atlantic Mine.....	Houghton.....	279	5,000 00	1,650 00	85 00	40 00	4,085 32	11 70	208	197	1	2	850 00	800 00
Attica.....	Lapeer.....	200	1,500 00	1,130 00	60 00	26 50	1,359 13	.....	178	193	1	2	600 00	530 00
Augusta.....	Kalamazoo.....	195	7,500 00	1,410 00	66 67	30 00	3,132 35	4,000 00	165	180	1	3	600 00	810 00
Au Sable.....	Iosco.....	639	3,500 00	1,900 00	70 00	40 00	2,303 74	.....	219	200	1	3	700 00	1,200 00

TABLE XVI.—*Continued.*

Districts.	Counties.	No. of Children between 5 and 20 years in School Census.	Estimated Valuation of School Property.	Amount paid for Superintendence and Instruction.	Average Monthly Wages of Teachers.		Total Expenditures.	Total Indebtedness.	No. of Children that attended School during the year.	No. of days School.	No. of Teachers Employed.		Total Wages of Teachers for the Year.	
					Men.	Women.					Men.	Women.	Men.	Women.
Bad Axe	Huron	276	$4,000 00	$1,250 00	$65 00	$30 00	$1,885 55	$3,200 00	205	200	1	2	$650 00	$600 00
Baldwin	Lake	155	4,000 00	990 00	.....	55 00	1,231 00	2,500 00	130	180	.....	2	.....	990 00
Bancroft	Shiawassee	212	3,000 00	1,220 00	72 00	32 00	2,272 68	752 40	180	180	1	2	650 00	570 00
Bangor	Van Buren	268	4,800 00	1,902 00	83 00	32 00	3,932 24	889 00	232	177	1	4	750 00	1,152 00
Bangor Tp. No 3 fl	Van Buren	108	2,000 00	560 00	45 00	25 00	712 01	93 75	98	160	1	1	360 00	200 00
Bath	Clinton	162	3,000 00	815 00	39 00	24 00	1,309 31	.....	148	160	2	3	430 00	385 00
Battle Creek	Calhoun	2,747	172,000 00	14,743 13	106 00	32 95	37,093 04	47,000 00	1,787	196	3	35	3,200 00	11,543 13
Bay City	Bay	7,351	180,000 00	28,975 01	200 00	39 00	47,857 60	7,700 00	3,657	196	1	69	2,000 00	26,975 01
Beacon	Marquette	704	15,000 00	4,680 00	93 00	60 00	11,075 42	5,000 00	510	200	2	6	1,680 00	3,000 00
Bear Lake	Manistee	159	4,000 00	750 00	45 00	28 00	1,850 87	2,642 23	148	180	1	2	405 00	345 00
Belding	Ionia	208	6,000 00	1,500 00	90 00	30 00	2,004 34	.....	200	200	1	2	900 00	600 00
Belleville	Wayne	184	10,000 00	1,160 00	70 00	20 00	1,684 66	.....	174	200	1	2	700 00	400 00
Bellevue	Eaton	320	7,000 00	1,301 40	50 00	28 38	3,220 77	.....	240	180	1	5	450 00	851 40
Benton Harbor	Berrien	807	20,000 00	5,025 00	92 00	36 00	6,252 33	.....	623	180	2	12	1,105 00	3,920 00
Berlin	Ottawa	128	1,000 00	612 00	50 00	30 80	737 98	.....	90	180	1	4	150 00	462 00
Berrien Springs	Berrien	239	9,000 00	1,830 00	83 00	30 00	2,962 35	1,000 00	185	180	1	4	750 00	1,080 00
Big Rapids	Mecosta	1,710	47,000 00	8,879 00	140 00	37 30	20,698 94	12,000 00	1,359	196	1	20	1,400 00	7,479 00
Birmingham	Oakland	326	15,000 00	2,330 00	80 00	34 00	3,190 11	.....	360	200	1	5	800 00	1,520 00
Blissfield Tp. No. 1 fl	Lenawee	215	6,000 00	1,500 00	70 00	26 60	2,467 92	1,500 00	191	200	1	3	700 00	800 00
Blissfield Tp. No. 2 fl	Lenawee	210	3,000 00	1,260 00	60 00	25 00	1,746 44	.....	208	200	1	3	600 00	660 00

Bloomingdale	Van Buren	180	4,000 00	990 00	50 00	30 00	2,162 84	2,500 00	145	180	1	2	450 00	540 00
Bluffton	Muskegon	117	1,000 00	911 75	65 00	36 40	1,093 63	.....	89	191	1	1	591 00	320 75
Boyne City	Charlevoix	191	7,500 00	675 00	.....	37 50	2,261 54	3,235 00	170	180	.....	2	.....	675 00
Breckinridge	Gratiot	109	1,200 00	540 00	.....	30 00	893 78	750 00	110	180	.....	2	.....	540 00
Breedsville	Van Buren	123	1,200 00	584 00	45 00	28 00	975 58	.....	76	160	1	1	360 00	224 00
Bridgehampton Tp. No. 1	Sanilac	133	800 00	320 00	35 00	.....	377 50	.....	85	180	1	.....	320 00	.....
Bridgehampton Tp. No. 2	Sanilac	170	700 00	531 25	50 00	26 05	605 42	.....	106	160	1	1	400 00	131 25
Bridgeport	Saginaw	114	2,500 00	720 00	50 00	30 00	833 26	.....	88	180	1	1	450 00	270 00
Brighton	Livingston	247	16,000 00	1,870 00	80 00	26 70	2,461 50	.....	231	200	1	4	800 00	1,070 00
Brockway Center	St. Clair	293	2,400 00	800 00	55 00	25 00	1,364 15	6,700 00	186	197	1	1	550 00	250 00
Bronson	Branch	318	4,000 00	1,578 00	83 00	30 60	2,116 19	.....	266	180	2	3	750 00	828 00
Brooklyn	Jackson	239	12,000 00	1,850 00	57 50	33 00	234 53	.....	198	198	2	2	1,150 00	700 00
Brown City	Sanilac	273	900 00	625 00	42 50	20 00	727 48	700 00	200	196	1	1	425 00	200 00
Buchanan	Berrien	580	40,000 00	3,502 84	67 00	35 00	7,806 68	8,000 00	493	190	2	7	1,280 00	2,222 84
Buel	Sanilac	104	700 00	405 00	40 50	.....	535 67	.....	82	200	1	.....	405 00	.....
Buena Vista Tp. No. 6	Saginaw	317	3,500 00	850 00	50 00	35 00	1,171 92	.....	127	200	1	1	500 00	350 00
Burlington	Calhoun	139	3,000 00	779 00	48 00	24 50	989 97	.....	144	178	1	2	435 00	344 00
Burr Oak	St. Joseph	256	15,000 00	1,531 25	65 00	25 19	3,849 75	275 00	245	175	2	4	725 00	806 25
Byron Centre	Kent	121	3,000 00	470 00	40 00	18 30	1,072 11	666 66	93	180	1	1	360 00	110 00
Byron	Shiawassee	133	5,000 00	1,036 50	50 43	28 00	1,163 60	.....	110	200	3	1	756 50	280 00
Cadillac	Wexford	1,159	24,000 00	5,336 25	64 00	35 36	12,743 35	2,500 00	758	197	3	10	1,800 00	3,536 25
Cady	Macomb	161	1,200 00	300 00	.....	30 00	382 10	.....	31	196	.....	1	.....	300 00
Caledonia	Kent	176	2,000 00	1,000 00	37 50	25 00	259 58	.....	153	198	2	1	750 00	250 00
Calumet	Houghton	3,015	600 00	17,606 76	90 00	55 70	26,363 12	.....	1,894	195	6	25	5,400 00	12,206 76
Cannonsburg	Kent	108	1,500 00	675 00	50 00	29 00	761 18	.....	92	180	1	2	350 00	325 00
Capac	St. Clair	268	10,000 00	1,000 00	50 00	25 00	2,559 76	3,000 00	185	209	1	2	500 00	500 00
Carleton	Monroe	202	3,000 00	765 00	56 00	36 00	874 07	30 25	133	163	1	1	450 00	315 00
Caro	Tuscola	633	4,500 00	3,615 00	100 00	34 80	5,050 92	.....	449	200	1	10	1,000 00	2,615 00

TABLE XVI.—*Continued.*

Districts.	Counties.	No. of Children between 5 and 20 years in School Census.	Estimated Valuation of School Property.	Amount paid for Superintendence and Instruction.	Average Monthly Wages of Teachers.		Total Expenditures.	Total Indebtedness.	No. of Children that attended School during the Year.	No. of days School.	No. of Teachers Employed.		Total Wages of Teachers for the Year.	
					Men.	Women.					Men.	Women.	Men.	Women.
Carrollton	Saginaw	375	$10,000 00	$1,300 00	$70 00	$30 00	$9,554 47	$7,200 00	324	197	1	2	$700 00	$600 00
Carson City	Montcalm	314	2,000 00	1,580 00	70 00	29 00	1,997 84	.....	250	200	1	3	700 00	880 00
Carsonville	Sanilac	120	600 00	400 00	40 00	.....	541 78	.....	77	197	1	.....	400 00	.....
Caseville	Huron	237	5,000 00	1,350 00	52 50	30 00	1,877 57	.....	123	198	2	1	1,050 00	300 00
Casnovia	Muskegon	101	2,850 00	855 00	60 00	12 40	1,344 80	.....	74	180	1	1	540 00	112 00
Cass City	Tuscola	259	10,000 00	1,540 00	50 00	30 00	3,561 75	8,000 00	211	197	2	2	1,000 00	540 00
Cassopolis	Cass	349	15,000 00	2,980 00	90 00	34 60	7,103 43	.....	299	200	1	6	900 00	2,080 00
Cedar Springs	Kent	339	20,000 00	2,640 00	80 00	39 00	6,036 71	3,000 00	322	197	1	6	800 00	1,840 00
Central Mine	Keweenaw	334	8,500 00	1,797 50	111 00	44 30	2,423 67	.....	214	180	1	2	1,000 00	797 50
Centreville	St. Joseph	256	16,000 00	2,425 00	80 00	32 50	6,458 41	1,940 00	192	200	1	6	800 00	1,625 00
Charlevoix	Charlevoix	360	4,000 00	1,705 00	94 00	31 00	2,228 66	410 00	303	177	1	3	850 00	855 00
Charlotte	Eaton	1,062	32,000 00	8,398 13	30 00	43 29	16,642 64	2,000 00	1,007	196	1	19	180 00	8,218 13
Chase	Lake	330	2,500 00	1,650 00	50 00	32 50	3,038 53	.....	270	200	2	2	1,000 00	650 00
Cheboygan	Cheboygan	535	10,000 00	2,784 00	100 00	36 00	5,810 20	2,000 00	341	200	1	5	1,000 00	1,820 00
Chelsea	Washtenaw	424	8,000 00	2,850 00	85 00	28 50	4,015 38	.....	390	200	1	7	850 00	2,000 00
Chesaning	Saginaw	380	15,000 00	1,782 00	70 00	33 00	6,534 13	6,500 00	330	178	1	5	630 00	1,152 00
Chickaming Tp. No. 3	Berrien	151	500 00	287 38	34 34	27 00	390 94	.....	90	160	1	1	137 38	150 00
Clare	Clare	381	4,000 00	1,570 03	65 00	30 66	2,317 92	250 00	268	196	1	4	650 00	920 03
Clarkston	Oakland	157	4,000 00	1,175 00	63 00	27 00	1,378 32	.....	148	197	1	2	635 00	540 00
Clayton	Lenawee	128	3,000 00	810 00	60 00	30 00	998 08	.....	113	180	1	1	540 00	270 00
Clifton Tp. No. 1	Keweenaw	30	1,500 00	450 00	.....	45 00	530 50	.....	17	200	.....	1	.....	450 00

Climax	Kalamazoo	124	2,500 00	777 75	50 88	35 50	1,080 10		102	180	2	1	457 50	320 25
Clinton	Lenawee	287	5,500 00	1,950 00	75 00	30 00	2,493 31		244	200	2	4	750 00	1,200 00
Clio	Genesee	182	800 00	720 00	50 00	30 00	846 70		126	176	1	1	450 00	270 00
Coldwater	Branch	1,278	61,000 00	9,826 00	86 80	36 80	16,646 92	6,200 00	1,096	197	3	21	2,606 00	7,220 00
Coleman	Midland	189	1,500 00	765 00	50 00	35 00	1,313 93	300 00	118	180	1	1	450 00	315 00
Coloma	Berrien	155	850 00	650 15	55 00	24 14	798 44		118	180	1	2	385 00	265 15
Colon	St. Joseph	183	3,000 00	1,240 00	60 00	32 00	2,084 11		138	200	1	2	800 00	640 00
Columbiaville	Lapeer	170	800 00	800 00	50 00	30 00	1,033 04		165	197	1	1	500 00	300 00
Concord	Jackson	204	7,500 00	1,760 00	80 00	32 00	4,315 52		193	198	1	3	800 00	960 00
Constantine	St. Joseph	373	35,000 00	3,550 00	125 00	32 00	4,781 65		363	200	1	7	1,250 00	2,300 00
Cooperville	Ottawa	283	5,000 00	1,530 00	65 00	35 00	2,110 05	440 00	243	180	1	3	585 00	945 00
Coral	Montcalm	201	2,500 00	766 15	49 75	26 86	964 65		168	199	1	1	497 50	268 65
Copper Falls	Keweenaw	212	1,600 00	918 00	80 00	38 00	959 25	656 47	132	180	1	1	723 00	190 00
Corunna	Shiawassee	451	28,500 00	3,060 00	90 00	30 70	5,808 01	9,000 00	359	200	1	7	900 00	2,150 00
Covert	Van Buren	160	1,000 00	833 00	45 00	23 70	1,094 26		150	180	1	3	405 00	428 00
Croswell	Sanilac	241	4,000 00	1,050 00	55 00	30 50	2,463 60	3,000 00	195	180	1	2	500 00	550 00
Dansville	Ingham	167	4,000 00	1,440 00	60 00	28 00	2,081 92		189	197	1	3	600 00	840 00
Davisburg	Oakland	77	1,200 00	521 00	38 40	25 00	579 38		58	180	1	1	346 00	175 00
Davison	Genesee	134	4,300 00	406 50		31 26	2,480 58	3,495 30	107	190		2		406 50
Dearborn	Wayne	301	2,500 00	870 00	66 00	30 00	1,123 39		210	180	1	1	600 00	270 00
Decatur	Van Buren	391	15,000 00	3,056 00	100 00	34 30	5,075 63	875 00	324	190	1	7	1,000 00	2,056 00
Deerfield	Lenawee	265	5,000 00	1,478 00	72 00	23 00	1,784 81		280	179	1	4	650 00	828 00
Detroit	Wayne	56,488	1,068,950 00	200,237 08	119 99	56 40	357,499 93		19,458	200	16	323	19,199 50	181,037 58
Dewitt	Clinton	156	7,000 00	806 00	55 00	25 50	992 14		94	180	1	2	500 00	306 00
Dexter	Washtenaw	326	8,000 00	2,600 00	90 00	28 30	3,276 59		300	200	1	6	900 00	1,700 00
Dimondale	Eaton	160	3,000 00	590 00	41 00	34 00	765 43		122	158	1	2	250 00	340 00
Douglas	Allegan	194	3,000 00	1,240 00	77 00	30 00	1,610 35		154	177	1	2	700 00	540 00
Dowagiac	Cass	615	20,000 00	4,598 50	53 00	36 56	8,362 63	1,386 28	585	197	4	9	2,120 00	2,478 50

TABLE XVI.—*Continued.*

Districts.	Counties.	No. of Children between 5 and 20 years in School Census.	Estimated Valuation of School Property.	Amount paid for Superintendence and Instruction.	Average Monthly Wages of Teachers.		Total Expenditures.	Total Indebtedness.	No. of Children that attended School during the year.	No. of days School.	No. of Teachers Employed.		Total Wages of Teachers for the Year.	
					Men.	Women.					Men.	Women.	Men.	Women.
Downington	Sanilac	357	$3,500 00	$720 00	$50 00	$30 00	$1,472 11	$2,800 00	185	180	1	1	$450 00	$270 00
Drenthe	Ottawa	130	3,250 00	652 50	45 00	20 25	1,395 62	1,400 00	103	200	1	1	450 00	202 50
Dryden	Lapeer	150	4,000 00	1,165 00	70 00	23 00	1,365 43	.....	125	200	1	3	700 00	465 00
Dundee	Monroe	440	20,000 00	2,450 00	70 00	29 00	5,942 48	15,590 00	372	200	1	6	700 00	1,750 00
East Lake	Manistee	345	3,600 00	1,350 00	.....	45 00	2,334 39	1,000 00	220	198	.....	3	.....	1,350 00
East Saginaw	Saginaw	8,301	205,000 00	41,747 67	93 85	43 04	76,453 06	3,000 00	4,432	194	11	73	10,323 77	31,423 90
East Tawas	Iosco	520	4,200 00	2,420 00	95 00	29 00	5,090 83	1,000 00	474	200	1	7	950 00	1,470 00
Eaton Rapids	Eaton	606	25,000 00	3,597 50	80 00	31 08	19,598 88	18,800 00	572	200	1	9	800 00	2,797 50
Ecorse	Wayne	234	3,900 00	704 50	50 00	28 27	878 25	.....	188	185	1	2	450 00	254 50
Edmore	Montcalm	293	2,500 00	1,600 00	70 00	30 00	2,209 04	.....	226	200	1	3	700 00	900 00
Edwardsburg	Cass	148	1,500 00	1,125 00	55 00	35 00	1,403 47	.....	120	180	1	2	495 00	630 00
Elk Rapids	Antrim	423	27,000 00	3,750 00	90 00	41 60	6,752 07	15,000 00	396	190	1	7	900 00	2,850 00
Elm Hall	Gratiot	137	2,500 00	720 00	50 00	30 00	1,573 14	538 00	99	180	1	1	450 00	270 00
Elsie	Clinton	211	2,000 00	972 00	50 00	29 00	1,022 40	.....	210	180	1	2	450 00	522 00
Erie	Monroe	203	5,000 00	701 25	38 95	.....	1,399 17	2,000 00	167	180	2	.....	701 25	.....
Escanaba	Delta	1,134	33,200 00	4,350 00	110 00	40 00	13,573 21	19,350 00	396	200	1	8	1,100 00	3,250 00
Essexville	Bay	440	7,000 00	1,810 00	67 50	39 00	3,014 24	.....	320	198	1	3	675 00	1,135 00
Evart	Osceola	487	6,000 00	2,364 50	90 00	29 88	3,304 35	.....	414	200	1	7	900 00	1,464 50
Farmington	Oakland	149	600 00	825 00	52 50	20 00	1,032 28	.....	115	198	1	2	525 00	300 00
Farwell	Clare	183	4,000 00	1,260 00	65 00	31 94	1,521 30	.....	142	180	1	2	585 00	675 00
Fennville	Allegan	195	1,600 00	549 00	40 00	25 00	786 99	.....	141	180	1	4	240 00	309 00

enton	Genesee	383	50,000 00	4,760 00	75 00	36 00	6,068 05		627	200	2	9	1,500 00	3,260 00
Ferrysburg	Ottawa	266	1,500 00	1,286 00	78 20	28 00	1,408 32		170	200	1	2	782 00	504 00
Fife Lake	Grand Traverse	135	5,000 00	875 00	43 70		1,956 98	2,580 00	103	200	2		875 00	
Filmore Centre	Allegan	179	1,000 00	549 00		30 50	628 97		122	180		2		549 00
Filmore Tp. No. 1	Allegan	151	2,000 00	586 25	43 00	27 18	690 52		115	177	1	2	280 00	326 25
Flat Rock	Wayne	235	12,000 00	1,110 00	60 00	25 50	1,389 69		165	200	1	3	600 00	510 00
Flint	Genesee	2,368	135,000 00	16,634 20	106 00	39 30	33,132 89	101,420 00	1,880	200	3	37	2,830 00	13,804 20
Flushing	Genesee	260	8,000 00	1,850 00	47 50	30 00	2,106 20		181	198	2	3	950 00	900 00
Forestville	Sanilac	192	2,000 00	447 50	35 00	20 90	661 56		125	180	1	1	280 00	167 50
Fort Gratiot	St. Clair	629	8,000 00	2,450 00	80 00	33 00	4,122 72	560 00	523	197	1	5	800 00	1,650 00
Fowler	Clinton	123	1,800 00	825 00	50 00	32 50	895 25	40 52	118	200	1	1	500 00	325 00
Fowlerville	Livingston	339	2,500 00	2,180 00	70 00	29 60	2,641 46		310	200	1	5	700 00	1,480 00
Frankfort	Benzie	400	5,000 00	2,624 52	96 05	35 00	3,300 37		341	196	2	6	864 52	1,760 00
Franklin Tp. No. 1	Houghton	315	300 00	1,350 00	60 00	37 00	1,705 21		185	197	1	2	600 00	750 00
Franklin Tp. No. 2	Houghton	316	4,000 00	1,850 00	90 00	47 50	2,998 19		209	197	1	2	900 00	950 00
Franklin Tp. No. 5	Houghton	436	2,000 00	1,900 00	100 00	45 00	3,007 11		253	200	1	2	1,000 00	900 00
Freeland	Saginaw	127	2,000 00	726 25	52 90	25 00	1,005 56		107	196	1	1	476 25	250 00
Freeport	Barry	133	1,500 00	628 00	56 00	29 00	768 74	103 39	94	140	1	3	224 00	404 00
Fremont	Newaygo	408	8,000 00	2,000 00	75 00	31 00	3,562 58		360	197	1	4	750 00	1,250 00
Fruitport	Muskegon	121	3,000 00	715 90	60 00	25 00	1,387 91		100	180	1	2	540 00	175 00
Gaines	Genesee	143	400 00	740 00	50 00	24 00	805 20		119	200	1	1	500 00	240 00
Galesburg	Kalamazoo	194	10,000 00	1,560 00	60 00	32 00	2,142 58		199	200	1	3	600 00	960 00
Galien	Berrien	175	4,000 00	1,170 00	63 00	30 00	1,389 73		150	198	1	2	570 00	600 00
Gaylord	Otsego	244	1,500 00	1,180 00	50 00	22 60	1,180 00		195	198	1	3	500 00	680 00
Girard	Branch	97	2,500 00	561 50	35 00	27 38	702 14		107	176	1	2	315 00	246 50
Gobleville	Van Buren	178	1,500 00	795 00	50 00	26 50	883 13		122	177	1	2	450 00	345 00
Goodrich	Genesee	91	2,000 00	600 00	50 00	25 00	685 28		73	180	1	1	450 00	150 00

TABLE XVI.—*Continued.*

Districts.	Counties.	No. of Children between 5 and 20 years in School Census.	Estimated Valuation of School Property.	Amount paid for Superintendence and Instruction.	Average Monthly Wages of Teachers.		Total Expenditures.	Total Indebtedness.	No. of Children that attended School during the Year.	No. of days School.	No. of Teachers Employed.		Total Wages of Teachers for the Year.	
					Men.	Women.					Men.	Women.	Men.	Women.
Graafschap	Allegan	201	$2,600 00	$570 00	$50 00	$27 00	$1,534 03	$900 00	170	200	1	1	$500 00	$270 00
Grand Haven	Ottawa	1,949	40,000 00	9,218 00	111 50	40 30	12,985 88	.....	1,554	200	3	19	1,560 00	7,658 00
Grand Ledge	Eaton	408	2,500 00	2,184 00	57 44	30 96	2,766 64	.....	370	200	2	5	976 50	1,207 50
Grand Rapids City	Kent	12,774	629,100 00	88,676 55	121 20	43 39	169,585 93	179,000 00	8,182	196	8	182	9,700 00	78,976 55
Grand Rapids Tp. No. 1	Kent	497	12,000 00	1,760 00	80 00	32 00	2,693 13	11,500 00	304	200	1	3	800 00	960 00
Grand Rapids Tp. No. 3	Kent	109	4,000 00	675 00	.....	37 50	2,066 79	1,793 00	77	180	.....	2	.....	675 00
Grand Rapids Tp. No. 6	Kent	241	2,700 00	992 50	.....	33 09	1,764 58	.....	125	200	.....	3	.....	992 50
Grand Rapids Tp. No. 15	Kent	325	3,500 00	900 00	60 00	30 00	1,847 80	2,950 00	146	200	1	1	600 00	300 00
Grandville	Kent	342	10,000 00	2,238 50	85 00	31 55	2,717 08	.....	315	196	1	5	850 00	1,388 50
Grass Lake	Jackson	222	8,000 00	1,714 00	77 00	30 70	2,384 79	353 70	230	180	1	4	700 00	1,014 00
Grattan	Kent	94	2,000 00	810 00	55 00	35 00	903 13	.....	101	177	1	1	495 00	315 00
Grayling	Crawford	216	4,500 00	1,600 00	80 00	40 00	2,678 52	2,500 00	171	200	1	2	800 00	800 00
Green	Alpena	106	1,100 00	490 00	35 00	35 00	742 00	.....	75	140	1	1	245 00	245 00
Greenland Tp. No. 1	Ontonagon	87	1,000 00	1,100 00	75 00	35 00	1,230 20	.....	79	197	1	1	750 00	350 00
Greenland Tp. No. 2 fl	Ontonagon	73	.....	850 00	60 00	25 00	1,161 27	.....	68	200	1	1	600 00	250 00
Greenland Tp. No. 2	Ontonagon	49	600 00	700 00	70 00	.....	794 02	.....	40	196	1	.....	700 00	.....
Greenville	Montcalm	916	40,000 00	7,253 00	100 00	37 50	9,761 63	.....	883	200	2	14	2,000 00	5,253 00
Grindstone City	Huron	214	2,500 00	850 00	55 00	30 00	977 40	500 00	149	197	1	1	550 00	300 00
Hadley	Lapeer	124	3,000 00	925 00	58 30	26 60	992 50	.....	140	178	1	2	525 00	400 00
Hamtramck Tp. No. 2	Wayne	224	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hancock	Houghton	1,195	26,000 00	7,202 50	115 00	48 53	15,777 14	14,000 00	607	198	2	10	2,300 00	4,902 50

Hanover	Jackson	163	8,000 00	1,750 00	75 00	33 30	2,180 23		195	200	1	3	750 00	1,000 00
Harbor Springs	Emmet	366	5,000 00	1,350 00	60 00	30 00	1,586 45	825 00	225	180	1	3	540 00	810 00
Harrison	Clare	225	2,500 00	1,305 00	75 00	35 00	1,716 18		196	180	1	2	675 00	630 00
Harrisville	Alcona	302	4,000 00	1,747 50	67 00	37 12	2,255 70	1,843 20	251	200	2	2	1,005 00	742 50
Hart	Oceana	231	3,000 00	1,650 00	70 00	31 80	2,076 73		198	200	1	3	700 00	950 00
Hartford	Van Buren	334	5,000 00	2,021 60	88 00	33 93	2,534 37		298	180	1	4	800 00	1,221 60
Hartland	Livingston	102	3,000 00	800 00	50 00	30 00	1,056 19		100	200	1	1	500 00	300 00
Hastings	Barry	765	40,000 00	4,995,00	95 00	31 70	9,021 57	23,000 00	800	196	2	13	1,150 00	3,845 00
Hersey	Osceola	172	3,500 00	1,282 50	68 25	30 00	4,536 88	1,500 00	130	200	1	2	682 50	600 00
Hesperia	Newaygo	238	4,000 00	1,085 00	42 70	35 00	2,657 04	100 00	178	180	2	1	770 00	315 00
Highland Station	Oakland	137	1,500 00	760 00	52 00	24 00	961 74		116	198	1	1	520 00	240 00
Hillsdale	Hillsdale	1,293	51,000 00	6,297 00	87 00	41 32	8,429 12		840	198	3	11	2,000 00	4,297 40
Holland	Ottawa	1,203	18,000 00	5,048 13	45 00	29 06	8,800 90	14,000 00	861	196	3	13	1,270 00	3,778 13
Holland Tp. No. 1 fl	Ottawa	147	1,300 00	450 00		45 00	582 47		95	200		1		450 00
Holland Tp. No. 9	Ottawa	130	1,500 00	500 00	50 00		736 61	150 00	88	200	1		500 00	
Holland Tp. No. 11 fl	Ottawa	125	700 00	385 00		38 50	459 44		89	200		1		385 00
Holly	Oakland	380	20,000 00	2,953 85	100 00	32 56	4,224 89	1,970 00	449	200	1	7	1,000 00	1,953 85
Holt	Ingham	140	2,000 00	227 50	45 00	27 00	1,130 75		117	177	1	1	405 00	243 00
Homer	Calhoun	329	8,500 00	2,400 00	60 00	30 00	3,177 04		294	196	2	5	1,200 00	1,200 00
Horton	Jackson	137	4,000 00	968 00	55 00	26 00	1,564 75	864 00	115	180	1	2	500 00	468 00
Houghton	Houghton	1,119	30,000 00	8,830 00	91 00	47 00	16,803 70		819	197	3	13	2,750 00	6,080 00
Howard City	Montcalm	302	4,500 00	1,680 00	75 00	33 20	3,933 42	2,500 00	254	186	1	3	750 00	930 00
Howell	Livingston	717	40,000 00	4,010 00	100 00	33 40	8,316 00	6,000 00	646	200	1	9	1,000 00	3,010 00
Hubbardston	Ionia	190	4,500 00	1,000 00	52 70	29 10	2,608 64	1,500 00	170	180	1	2	475 00	525 00
Hudson	Lenawee	384	10,000 00	3,510 00	72 00	34 50	5,212 75		371	198	2	6	1,440 00	2,070 00
Hudson Tp. No. 5	Lenawee	242	4,000 00	1,746 00	100 00	31 30	2,048 02		200	180	1	3	900 00	846 00
Humboldt	Marquette	128	4,000 00	462 50		51 40	918 48		76	185		2		462 50
Ida	Monroe	125	1,500 00	480 00	40 00	24 00	608 72		89	180	1	1	360 00	120 00

TABLE XVI.—*Continued.*

Districts.	Counties.	No. of Children between 5 and 20 years in School Census.	Estimated valuation of School Property.	Amount paid for Superintendence and Instruction.	Average Monthly Wages of Teachers.		Total Expenditures.	Total Indebtedness.	No. of Children that attended School during the Year.	No. of days School.	No. of Teachers Employed.		Total Wages of Teachers for the Year.	
					Men.	Women.					Men.	Women.	Men.	Women.
Imlay City	Lapeer	512	$15,000 00	$1,885 00	$80 00	$27 10	$2,277 02	$8,500 00	314	200	1	4	$800 00	$1,085 00
Inverness Tp. No. 3 fl	Cheboygan	211	2,200 00	1,000 00	65 00	35 00	1,187 23	.....	123	200	1	1	650 00	350 00
Ionia	Ionia	1,314	56,000 00	10,798 50	102 00	40 12	20,999 65	8,000 00	1,043	195	2	22	2,050 00	8,748 50
Iron Mountain	Menominee	969	18,000 00	6,200 00	120 00	45 50	13,275 35	8,320 00	775	200	1	11	1,200 00	5,000 00
Ironton	Charlevoix	192	3,000 00	630 00	40 00	30 00	1,609 50	1,148 00	134	180	2	1	360 00	270 00
Ishpeming	Marquette	1,955	38,000 00	10,670 00	200 00	48 68	28,270 52	5,000 00	1,473	195	1	18	2,000 00	8,670 00
Ishpeming Tp. No. 1	Marquette	169	1,200 00	850 00	50 00	35 00	1,171 27	.....	120	197	1	1	500 00	350 00
Ithaca	Gratiot	525	25,000 00	3,025 00	75 00	30 50	7,069 70	20,500 00	504	200	2	5	1,500 00	1,525 00
Jackson No. 1	Jackson	2,737	100,000 00	21,890 85	158 60	46 73	34,982 55	1,000 00	2,125	195	3	38	4,600 00	17,290 85
Jackson No. 17	Jackson	2,261	55,000 00	8,724 00	150 00	35 14	12,830 26	2,500 00	1,482	200	1	21	1,500 00	7,380 00
Jamestown	Ottawa	112	2,500 00	275 00	.....	30 50	998 83	1,018 00	103	176	.....	2	.....	275 00
Jonesville	Hillsdale	460	40,000 00	2,890 00	100 00	37 80	4,094 64	.....	340	200	1	5	1,000 00	1,890 00
Kalamazoo	Kalamazoo	4,286	200,000 00	24,755 53	141 30	37 40	56,828 62	10,000 00	2,656	196	3	57	4,100 00	20,655 53
Kalkaska	Kalkaska	201	9,000 00	2,140 00	80 00	40 00	4,465 83	5,700 00	172	198	1	5	800 00	1,340 00
Kingsley	Gr. Traverse	193	1,000 00	600 00	45 00	30 00	950 90	.....	127	160	1	1	360 00	240 00
Kingston	Tuscola	148	1,250 00	560 00	40 00	30 00	929 58	450 00	97	159	1	1	320 00	240 00
Laingsburg	Shiawassee	146	4,500 00	1,290 00	60 00	30 00	2,369 28	1,333 32	141	200	1	3	600 00	690 00
Lake Linden	Houghton	1,589	4,300 00	8,151 25	95 00	52 09	11,396 58	.....	848	197	2	12	1,900 00	6,251 25
Lakeview	Montcalm	295	3,000 00	1,700 00	70 00	33 30	2,103 51	.....	272	192	1	3	700 00	1,000 00
Lamont	Ottawa	102	2,000 00	587 44	49 90	32 00	1,012 44	.....	78	190	2	2	299 44	288 00
L'Anse	Baraga	329	10,000 00	2,550 00	90 00	41 00	5,174 59	2,500 00	224	200	1	4	900 00	1,650 00

Lansing	Ingham	2,792	100,000 00	15,643 27	143 86	42 46	28,661 76	51,000 00	1,862	189	2	32	2,733 34	12,909 98
Lapeer	Lapeer	843	35,000 00	5,750 00	87 50	30 00	7,497 77	.....	808	195	2	13	1,750 00	4,000 00
Lawrence	Van Buren	184	9,000 00	1,585 00	77 00	19 66	2,138 60	.....	175	180	1	5	700 00	885 00
Lawton	Van Buren	214	15,000 00	1,512 00	60 00	31 50	2,079 62	.....	221	190	1	3	600 00	912 00
Leslie	Ingham	445	12,000 00	2,400 00	57 50	31 25	3,580 14	.....	375	200	2	4	1,150 00	1,250 00
Lexington	Sanilac	318	3,000 00	1,625 42	52 20	28 00	2,005 64	.....	248	196	3	3	785 42	840 00
Linden	Genesee	198	5,000 00	990 00	42 50	25 00	2,462 04	2,000 00	125	178	2	1	765 00	225 00
Lisbon	Ottawa	101	2,000 00	810 00	60 00	30 00	962 90	.....	89	178	1	1	540 00	270 00
Litchfield	Hillsdale	205	2,000 00	1,490 50	56 10	26 93	1,852 82	.....	225	176	5	5	898 00	592 50
Lowell	Kent	780	13,000 00	3,640 00	67 00	32 80	4,884 07	.....	652	197	2	7	1,840 00	2,300 00
Ludington	Mason	1,831	45,000 00	11,010 00	79 00	35 40	22,118 84	20,000 00	1,350	198	3	21	2,200 00	8,890 00
Luther	Lake	388	6,000 00	1,838 00	65 00	29 70	4,089 95	300 00	258	200	1	4	650 00	1,188 00
Lyons	Ionia	225	2,000 00	1,568 00	72 00	35 30	2,087 88	.....	166	180	1	3	650 00	954 00
McBrides	Montcalm	238	2,000 00	1,140 00	66 00	30 00	1,434 85	.....	185	180	1	2	600 00	540 00
Mackinac (Island)	Mackinac	203	2,500 00	970 63	70 00	34 33	1,289 13	.....	145	147	1	2	490 00	480 63
Mancelona	Antrim	408	6,000 00	1,695 00	47 50	33 60	2,599 99	3,000 00	392	178	2	3	855 00	840 00
Manchester	Washtenaw	452	25,000 00	3,304 00	100 00	33 40	5,468 00	.....	304	200	1	7	1,000 00	2,304 00
Manistee	Manistee	3,257	80,000 00	17,060 04	87 00	45 79	37,987 97	20,000 00	2,202	198	5	32	2,955 00	14,105 04
Manton	Wexford	197	500 00	1,087 50	55 00	26 87	1,958 89	.....	152	200	1	2	550 00	537 50
Maple Rapids	Clinton	231	3,000 00	1,400 00	51 60	29 00	1,606 74	.....	210	200	2	3	672 00	728 00
Marcellus	Cass	178	7,500 00	1,050 00	50 00	33 30	2,199 96	2,900 00	163	180	1	2	450 00	600 00
Marine City	St. Clair	870	15,000 00	2,000 00	83 30	27 78	2,908 84	.....	292	180	1	5	750 00	1,250 50
Marlette	Sanilac	260	3,000 00	1,150 00	60 00	27 50	1,359 77	.....	208	200	1	2	600 00	550 00
Marquette	Marquette	2,012	58,000 00	7,223 75	98 60	44 60	22,445 87	40,750 00	1,304	195	2	24	1,875 00	9,098 75
Marshall	Calhoun	1,212	100,000 00	8,825 00	120 00	33 30	18,242 55	5,000 00	796	198	2	19	2,400 00	6,425 00
Mason	Ingham	570	18,000 00	3,886 00	100 00	34 70	6,812 76	.....	566	200	1	9	1,000 00	2,886 00
Mattawan	Van Buren	107	2,000 00	456 00	.....	35 09	585 83	.....	80	180	.....	2	.....	456 20
May	Tuscola	185	800 00	750 00	38 40	25 00	829 05	36 00	148	200	2	1	500 00	250 00

TABLE XVI.—*Continued.*

Districts.	Counties.	No. of Children between 5 and 10 years in School Census.	Estimated valuation of School Property.	Amount paid for Superintendence and Instruction.	Average Monthly Wages of Teachers.		Total Expenditures.	Total Indebtedness.	No. of Children that attended School during the Year.	No. of days School.	No. of Teachers Employed.		Total Wages of Teachers for the Year.	
					Men.	Women.					Men.	Women.	Men.	Women.
Mecosta	Mecosta	244	$2,400 00	$1,206 00	$51 00	$32 00	$1,819 51		179	180	2	1	$918 00	$288 00
Memphis	Macomb	256	5,000 00	1,260 00	70 00	28 00	2,056 78		214	195	1	2	700 00	560 00
Mendon	St. Joseph	276	10,000 00	2,125 00	75 00	34 37	3,625 00		242	197	1	4	750 00	1,375 00
Menominee	Menominee	1,956	35,000 00	8,841 75	79 79	43 00	14,801 32	2,000 00	991	198	2	22	478 75	8,363 00
Metamora	Lapeer	155	3,500 00	1,008 00	60 00	26 00	1,213 60		137	180	1	2	540 00	468 00
Michigamme	Marquette	335	5,000 00	2,092 50	80 00	43 08	3,279 13		279	200	1	3	800 00	1,292 50
Middleville	Barry	238	14,000 00	1,680 00	65 00	30 00	4,725 70	4,400 00	170	200	2	4	780 00	900 00
Midland	Midland	632	24,000 00	4,081 00	100 00	39 50	8,429 18		573	196	1	8	1,000 00	3,081 00
Milan	Washtenaw	253	6,500 00	1,249 56	63 84	25 00	2,432 28	2,000 00	211	180	2	3	574 56	675 00
Milford	Oakland	400	16,000 00	2,250 00	90 00	27 00	4,453 38	8,585 98	314	198	1	5	900 00	1,350 00
Millburg	Berrien	106	2,500 00	570 00	46 25	25 00	681 16		100	160	2	1	370 00	200 00
Millington	Tuscola	241	6,500 00	1,337 00	65 00	24 60	2,121 83	6,004 00	214	183	1	4	650 00	691 00
Montague	Muskegon	589	19,000 00	3,425 00	77 50	37 50	6,243 89	4,900 00	365	200	2	6	1,550 00	1,875 00
Monroe City	Monroe	1,707	16,000 00	4,800 00	120 00	36 00	7,182 49		622	196	1	11	1,200 00	3,600 00
Morenci	Lenawee	396	12,000 00	1,883 50	66 00	27 90	3,720 14		339	175	1	7	600 00	1,283 50
Morrice	Shiawassee	163	5,000 00	880 00	50 00	31 66	1,343 01	3,116 43	110	200	1	2	500 00	380 00
Morley	Mecosta	150	1,800 00	960 00	56 00	40 00	1,144 33		106	197	1	1	560 00	400 00
Moscow	Hillsdale	84	900 00	511 75	50 85	28 61	671 85	7 38	61	185	1	2	254 25	257 50
Mount Clemens	Macomb	1,330	22,900 00	4,040 00	110 00	29 40	5,422 54		725	192	1	10	1,100 00	2,940 00
Mount Morris	Genesee	182	2,050 00	657 75	48 12	30 75	781 29		110	176	2	2	288 75	369 00
Mount Pleasant	Isabella	655	18,000 00	3,610 09	100 00	37 20	7,917 53	10,000 00	541	200	1	7	1,000 00	2,610 00

Muir	Ionia	213	6,000 00	1,376 00	77 70	32 00	2,891 94	2,500 00	193	178	1	2	700 00	576 00
Muskegon	Muskegon	6,291	130,000 00	31,887 88	116 00	46 17	44,055 23	27,000 00	4,204	200	3	63	2,800 00	29,087 88
Napoleon	Jackson	139	5,000 00	1,545 00	59 00	31 50	1,962 36	.....	116	190	2	2	945 00	600 00
Nashville	Barry	328	16,000 00	1,793 75	70 00	28 73	10,636 90	6,000 00	280	200	1	4	700 00	1,093 75
National Mine	Marquette	298	5,000 00	2,250 00	88 33	49 30	3,950 05	1,361 00	202	196	1	3	795 00	1,036 00
Negaunee	Marquette	1,925	14,300 00	7,636 00	96 60	45 10	10,252 72	.....	926	200	3	11	2,900 00	4,736 00
Newaygo	Newaygo	454	4,000 00	2,620 00	100 00	42 60	3,108 73	34 22	306	197	1	4	1,000 00	1,620 00
New Baltimore	Macomb	351	22,000 00	1,130 00	60 00	26 50	1,767 33	.....	202	197	1	2	600 00	530 00
New Buffalo	Berrien	209	4,000 00	1,020 00	60 00	30 00	1,324 48	.....	150	180	1	2	480 00	540 00
Newberry	Chippewa	200	5,500 00	950 00	55 00	40 00	3,791 36	6,192 00	105	200	1	1	550 00	400 00
New Groningen	Ottawa	124	1,800 00	555 00	45 00	15 00	906 92	200 00	86	200	1	1	450 00	105 00
New Haven	Macomb	225	1,500 00	972 00	60 00	24 00	1,268 23	.....	183	180	1	2	540 00	432 00
New Holland	Ottawa	193	1,000 00	600 00	48 00	15 00	727 24	.....	114	200	1	1	480 00	120 00
New Hudson	Oakland	73	4,000 00	525 00	45 00	20 00	635 12	.....	61	178	1	1	405 00	120 00
New Troy	Berrien	126	5,000 00	760 00	65 00	24 00	966 39	.....	106	200	1	2	520 00	240 00
Niles	Berrien	1,233	50,000 00	8,949 37	115 00	35 52	12,017 56	.....	961	185	2	21	2,200 00	6,749 37
North Adams	Hillsdale	180	10,000 00	1,418 00	67 50	30 00	2,041 81	.....	220	180	2	3	608 00	810 00
North Branch	Lapeer	233	1,500 00	1,200 00	60 00	30 00	1,427 38	.....	201	200	1	2	600 00	600 00
North Muskegon	Muskegon	624	12,000 00	2,627 50	100 00	35 38	7,952 18	6,422 16	407	200	1	5	1,000 00	1,627 50
Northport	Leelanaw	148	2,000 00	824 00	.....	34 30	958 67	.....	147	178	.....	3	.....	824 00
Northville	Wayne	392	15,000 00	2,065 90	70 00	27 87	2,838 67	750 00	280	200	1	5	700 00	1,365 90
Norway	Menominee	541	10,000 00	3,250 00	80 00	40 80	7,686 90	.....	456	200	1	6	800 00	2,450 00
Nunica	Ottawa	151	2,500 00	726 00	55 00	22 00	806 97	.....	110	200	1	1	550 00	176 00
Okemos	Ingham	122	2,500 00	637 00	50 00	36 40	775 63	.....	104	180	1	2	200 00	437 00
Olivet	Eaton	209	7,500 00	1,154 00	72 00	28 00	2,448 17	5,500 00	163	180	1	2	650 00	504 00
Onekama	Manistee	154	2,000 00	591 25	.....	36 95	1,856 88	1,200 00	115	160	.....	3	.....	591 25
Onondaga	Ingham	126	1,000 00	763 18	50 00	26 33	924 82	.....	88	200	1	2	500 00	263 88
Ontonagon	Ontonagon	358	11,500 00	3,100 00	82 50	36 20	3,678 77	.....	277	200	2	5	1,650 00	1,450 00

TABLE XVI.—*Continued.*

Districts.	Counties.	No. of Children between 5 and 20 years in School Census.	Estimated Valuation of School Property.	Amount paid for Superintendence and Instruction.	Average Monthly Wages of Teachers.		Total Expenditures.	Total Indebtedness.	No. of Children that attended School during the year.	No. of days School.	No. of Teachers Employed.		Total Wages of Teachers for the year.	
					Men.	Women.					Men.	Women.	Men.	Women.
Orange	Ionia	81	$300 00	$310 00	$34 40	.....	$356 06	.....	55	180	1	.....	$310 00	.....
Orion	Oakland	190	3,000 00	780 00	50 00	$28 00	922 17	.....	130	200	1	1	500 00	$280 00
Oscoda	Iosco	957	8,000 00	3,425 00	78 30	37 50	6,406 25	$2,208 00	402	200	2	6	1,175 00	2,250 00
Osseo	Hillsdale	111	3,000 00	425 00	.....	23 60	689 06	.....	114	180	.....	2	.....	425 00
Otisville	Genesee	195	2,000 00	8,900 00	45 00	22 00	1,196 03	.....	159	198	1	2	450 00	440 00
Otsego	Allegan	404	10,000 00	2,775 00	100 00	34 00	4,072 31	.....	360	180	1	8	900 00	1,875 00
Otter Lake	Lapeer	175	1,200 00	702 00	50 00	28 00	797 63	.....	137	180	1	1	450 00	252 00
Overisel	Allegan	124	2,000 00	371 00	.....	26 50	1,264 06	675 00	99	178	.....	2	.....	371 00
Ovid	Clinton	488	20,000 00	3,227 47	103 24	29 80	6,204 33	.....	436	200	4	7	1,135 47	2,092 00
Owosso	Shiawassee	1,388	55,000 00	8,600 00	62 80	45 50	18,197 47	7,000 00	1,022	196	5	12	3,140 00	5,460 00
Oxford	Oakland	317	1,500 00	1,930 00	75 00	29 50	2,507 57	400 00	188	198	1	4	750 00	1,180 00
Palmyra	Lenawee	154	3,000 00	714 75	54 72	24 69	821 77	.....	115	180	1	1	492 50	222 25
Palo	Ionia	97	4,000 00	1,060 00	55 00	30 00	1,525 43	.....	112	200	1	3	550 00	510 00
Paris Tp. No. 1	Kent	105	1,500 00	405 00	.....	45 00	477 96	.....	62	180	.....	1	.....	405 00
Parma	Jackson	224	14,000 00	1,916 00	53 30	32 00	5,211 42	1,325 00	220	200	3	2	1,276 00	640 00
Paw Paw	Van Buren	372	35,000 00	3,590 00	120 00	34 00	8,331 37	6,000 00	430	200	1	9	1,200 00	2,390 00
Pentwater	Oceana	415	8,000 00	2,550 00	57 50	35 00	3,227 20	.....	350	200	2	5	1,150 00	1,400 00
Perry	Shiawassee	159	4,000 00	1,322 00	70 00	27 00	2,141 62	1,000 00	120	200	1	3	700 00	622 00
Petersburg	Monroe	191	8,000 00	929 50	50 00	26 63	1,132 28	.....	133	178	1	3	450 00	479 50
Petoskey	Emmet	774	10,000 00	3,857 35	105	31 25	8,837 67	4,300 00	590	200	1	10	1,050 00	2,812 60

Pewamo	Ionia	120	1,000 00	990 00	90 00	30 00	1,377 05	.....	118	178	1	2	540 00	450 00
Phœnix	Keweenaw	75	3,500 00	1,000 00	100 00	.....	1,315 14	220 00	50	200	1	.....	1,000 00	.....
Pierson	Montcalm	159	2,000 00	727 50	47 50	30 00	811 83	.....	121	198	1	1	427 50	300 00
Pinckney	Livingston	210	150 00	1,200 00	66 60	33 30	1,514 96	.....	200	180	1	2	600 00	600 00
Pinconning	Bay	312	5,000 00	900 00	45 00	.....	2,587 51	2,500 00	208	196	3	.....	900 00	.....
Pinnebog	Huron	190	1,600 00	656 25	55 00	26 56	1,221 17	109 82	130	200	1	1	550 00	106 25
Pine Run	Genesee	103	1,000 00	443 00	45 00	21 60	485 99	.....	89	160	1	2	270 00	173 00
Plainwell	Allegan	460	15,000 00	3,002 40	100 00	33 90	5,062 40	2,805 00	422	176	1	7	900 00	2,102 40
Plymouth	Wayne	393	15,000 00	3,050 00	100 00	34 10	5,708 16	7,000 00	390	200	1	6	1,000 00	2,050 00
Pontiac	Oakland	1,230	80,000 00	10,330 00	93 00	36 40	15,151 87	399 95	1,096	200	3	20	2,790 00	7,280 00
Port Austin	Huron	400	4,000 00	1,300 00	70 00	30 00	1,654 93	.....	173	200	1	2	700 00	600 00
Port Crescent	Huron	147	2,000 00	798 50	50 00	29 85	1,065 88	84 93	110	197	1	1	500 00	298 50
Port Hope	Huron	300	2,500 00	850 00	55 00	30 00	1,045 99	.....	163	198	1	1	550 00	800 00
Port Huron	St. Clair	3,887	95,900 00	14,060 00	150 00	36 90	26,529 23	7,000 00	2,216	196	1	34	1,500 00	12,560 00
Portland	Ionia	540	16,000 00	3,580 00	68 00	34 50	9,245 25	7,300 00	557	190	2	7	1,300 00	2,280 00
Port Sanilac	Sanilac	243	500 00	1,010 00	60 00	27 60	1,132 68	1,200 00	200	180	1	2	540 00	470 00
Potterville	Eaton	236	4,600 00	990 00	.....	34 40	1,224 08	35 11	178	177	.....	3	.....	990 00
Quincy	Branch	342	12,000 00	2,574 00	97 50	31 90	6,279 52	700 00	326	200	1	5	975 00	1,599 00
Quincy Tp. No. 1	Houghton	520	.....	2,350 00	100 00	45 00	3,023 59	.....	235	198	1	3	1,000 00	1,350 00
Reading	Hillsdale	270	12,000 00	1,539 50	45 10	32 35	3,615 28	2,000 00	236	200	2	4	767 00	772 50
Reed City	Osceola	721	7,000 00	3,000 00	60 00	30 00	6,861 34	2,100 00	537	200	2	6	1,200 00	1,800 00
Reese	Tuscola	225	2,200 00	765 00	50 00	35 00	911 76	.....	140	180	1	7	450 00	315 00
Republic	Marquette	647	12,600 00	4,126 00	132 00	46 70	10,257 44	.....	539	200	1	7	1,320 00	2,806 00
Richland	Kalamazoo	132	5,500 00	1,300 00	70 00	30 00	2,454 58	2,000 00	146	198	1	2	700 00	600 00
Richmond	Macomb	225	8,000 00	1,393 25	75 00	26 60	2,213 68	3,200 00	228	180	1	3	675 00	718 25
Riley Centre	St. Clair	108	1,200 00	360 00	.....	22 50	445 96	.....	82	160	.....	3	.....	360 00
Rochester	Oakland	296	3,000 00	1,760 00	80 00	32 00	2,090 16	.....	219	200	1	3	800 00	960 00
Rockford	Kent	245	15,000 00	1,672 50	60 19	32 90	4,118 26	8,000 00	326	200	2	4	782 50	890 00

TABLE XVI.—*Continued.*

Districts.	Counties.	No. of Children between 5 and 20 years in School Census.	Estimated Valuation of School Property.	Amount paid for Superintendence and Instruction.	Average Monthly Wages of Teachers.		Total Expenditures.	Total Indebtedness.	No. of Children that attended School during the Year.	No. of days School.	No. of Teachers Employed.		Total Wages of Teachers for the Year.	
					Men.	Women.					Men.	Women.	Men.	Women.
Rockland	Ontonagon	261	$3,000 00	$2,900 00	$82 50	$41 60	$3,647 84		186	197	2	3	$1,650 00	$1,250 00
Rogers City	Presque Isle	129	4,000 00	970 00	42 50	30 00	2,414 72	$3,000 00	120	180	4	1	850 00	120 00
Romeo	Macomb	526	25,000 00	3,905 00	150 00	34 30	10,796 12	13,164 72	455	196	1	7	1,500 00	2,405 00
Royal Oak	Oakland	173	2,500 00	581 25	46 60	31 80	767 29		109	160	1	1	326 25	255 00
Ryerson	Muskegon	444	2,500 00	2,165 04	41 44	49 19	3,103 90		270	190	2	4	787 54	1,377 50
Saginaw	Saginaw	4,480	125,000 00	19,900 17	90 00	34 26	53,294 44	15,000 00	2,437	197	5	45	4,500 00	15,417 00
St. Charles	Saginaw	317	7,000 00	1,431 25	73 12	35 00	5,156 15	4,000 00	186	200	1	2	731 25	700 00
St. Clair	St. Clair	754	22,000 00	4,350 00	110 00	32 50	6,859 09	7,000 00	570	200	1	10	1,100 00	3,250 00
St. Ignace	Mackinac	692	13,500 00	2,942 50	53 70	33 30	5,715 51	9,900 00	463	158	3	6	1,342 50	1,600 00
St. James	Manitou	193	600 00	220 00	40 00	25 00	365 00	300 00	47	220	1	1	240 00	125 00
St. Johns	Clinton	743	39,000 00	5,612 00	120 00	35 00	36,291 18	23,600 00	355	198	1	13	1,200 00	4,412 00
St. Joseph	Berrien	1,128	41,500 00	5,245 00	73 00	35 50	12,030 38	15,000 00	320	185	2	12	1,315 00	3,950 00
St. Louis	Gratiot	785	14,000 00	4,235 00	100 00	32 35	7,390 16	7,000 00	601	196	1	11	1,000 00	3,235 00
Salem	Washtenaw	99	1,400 00	260 00	48 00	23 30	1,703 30	1,125 81	75	130	1	1	240 00	140 00
Saline	Washtenaw	272	25,000 00	2,565 00	90 00	33 30	3,693 03		255	200	1	5	900 00	1,665 00
Salt River	Isabella	163	1,700 00	690 00	51 00	35 00	869 93	49 04	135	157	1	1	410 00	280 00
Sand Beach	Huron	420	5,000 00	1,927 00	70 00	31 40	3,898 46	1,694 12	318	200	1	4	700 00	1,227 00
Sand Lake	Kent	166	2,500 00	1,140 00	66 60	30 00	2,582 29	550 00	135	180	1	2	600 00	540 00
Sanilac Tp. No. 2	Sanilac	123	1,500 00	508 00	42 00	22 00	571 02		117	196	1	1	420 00	88 00
Sanilac Tp. No. 3	Sanilac	127	800 00	320 00	35 50		361 59		80	180	2		320 00	
Saranac	Ionia	324	12,500 00	1,480 00	69 40	31 60	1,889 22		252	180	1	3	625 00	855 00

Saugatuck	Allegan	395	6,500 00	1,685 00	72 00	28 70	2,150 85		307	177	1	4	650 00	1,085 00
Sault St. Marie	Chippewa	1,015	15,000 00	2,955 00	90 00	34 80	4,474 77	3,000 00	728	200	1	7	900 00	2,055 00
Schoolcraft	Kalamazoo	302	24,000 00	2,674 00	111 00	37 20	3,445 07		312	180	1	5	222 20	1,674 00
Sebewaing	Huron	341	2,500 00	850 00	60 00	25 00	1,008 40		139	200	1	1	600 00	250 00
Shelby	Oceana	244	3,500 00	1,364 50	70 00	33 38	1,792 43		214	180	1	3	630 00	734 50
Sheridan	Montcalm	288	4,000 00	1,296 20	60 00	29 08	1,644 34		270	180	1	3	540 00	756 20
Sherwood	Branch	165	3,000 00	734 00	40 00	28 70	1,065 30		148	180	1	2	360 00	374 00
South Frankfort	Benzie	137	3,000 00	900 00	55 00	35 00	1,362 03		127	200	1	1	550 00	350 00
South Haven	Van Buren	462	5,000 00	2,296 80	77 00	28 51	3,818 14	750 00	418	190	1	8	700 00	1,596 80
South Lyon	Oakland	246	4,000 00	1,383 00	75 00	21 10	2,817 10	2,350 00	215	198	1	3	750 00	633 00
Sparta Centre	Kent	217	5,000 00	1,710 00	85 00	31 80	2,807 68		241	200	1	3	850 00	860 00
Spring Lake	Ottawa	721	8,500 00	4,063 00	111 00	36 00	4,785 49	15 00	529	190	1	9	1,000 00	3,063 00
Springport	Jackson	126	5,000 00	1,350 00	70 00	32 50	1,649 56		156	200	1	2	700 00	650 00
Springwells Tp. No. 1	Wayne	307	2,000 00				2,152 40	5,500 00						
Springwells Tp. No. 2	Wayne	315	2,000 00	800 00	50 00	30 00	1,295 29		140	200	1	1	500 00	300 00
Springwells Tp. No. 4	Wayne	531					1,047 50							
Springwells Tp. No. 7	Wayne	131	1,550 00	300 00		30 00	1,642 71	400 00	70	179		1		300 00
Stambaugh	Iron	102	3,000 00	1,100 00		55 00	1,506 30	750 00	115	196		2		1,100 00
Stanton	Montcalm	605	7,000 00	4,103 00	110 00	36 60	5,971 37		494	200	1	9	1,100 00	3,003 00
Sturgis	St. Joseph	555	30,000 00	3,868 10	115 78	34 88	6,647 26		547	180	1	9	1,042 10	2,826 00
Sumner	Gratiot	113	4,500 00	930 00	60 00	33 00	2,140 49	1,500 00	104	200	1	1	600 00	330 00
Sutton's Bay	Leelanaw	157	4,000 00	570 00		31 60	692 60		87	180		2		570 00
Tawas City	Iosco	499	5,000 00	2,000 00	80 00	40 00	3,158 97	1,800 00	288	198	1	3	800 00	1,200 00
Tecumseh	Lenawee	607	40,000 00	4,750 00	120 00	32 20	10,646 09	3,600 00	525	194	1	12	1,200 00	3,550 00
Tekonsha	Calhoun	179	8,000 00	1,044 00	60 00	28 00	1,428 79		137	178	1	2	540 00	504 00
Thornville	Lapeer	102	1,800 00	495 00	45 00	30 00	685 36		74	180	1	1	225 00	270 00
Three Oaks	Berrien	285	6,000 00	1,480 00	80 00	35 00	2,157 13		221	156	1	3	640 00	840 00
Three Rivers No. 1	St. Joseph	524	20,000 00	3,930 00	120 00	34 12	7,264 82	1,200 00	489	200	1	9	1,200 00	2,730 00

TABLE XVI.—*Continued.*

Districts.	Counties.	No. of Children between 5 and 20 years in School Census.	Estimated Valuation of School Property.	Amount paid for Superintendence and Instruction.	Average Monthly Wages of Teachers.		Total Expenditures.	Total Indebtedness.	No. of Children that attended School during the year.	No. of days School.	No. of Teachers Employed.		Total Wages of Teachers for the Year.	
					Men.	Women.					Men.	Women.	Men.	Women.
Three Rivers No. 4	St. Joseph	301	$7,000 00	$2,160 00	$100 00	$29 00	$3,392 30	$2,300 00	267	198	1	4	$1,000 00	$1,160 60
Traverse City	Gr'd Traverse	1,006	30,000 00	5,880 00	33 00	43 30	38,015 22	26,000 00	629	180	1	12	1,200 00	4,680 00
Trenton	Wayne	436	2,500 00	1,050 00	50 00	27 50	1,359 75	.....	285	196	1	2	500 00	550 00
Trufant	Montcalm	187	1,000 00	599 25	49 75	26 86	793 51	.....	151	199	1	1	497 50	268 65
Tuscola	Tuscola	142	1,000 00	670 00	45 00	22 00	859 90	.....	126	197	1	1	450 00	220 00
Union City	Branch	517	20,000 00	3,851 71	67 50	32 91	6,718 27	40,000 00	450	200	2	9	1,350 00	2,501 71
Unionville	Tuscola	185	1,500 00	948 00	50 00	23 50	1,426 88	.....	142	200	1	2	500 00	448 00
Utica	Macomb	345	13,000 00	2,060 00	47 30	32 00	2,794 32	.....	256	200	3	2	1,420 00	640 00
Vandalia	Cass	149	8,000 00	1,326 00	78 68	27 54	1,820 68	.....	167	170	1	3	637 50	688 50
Vassar	Tuscola	628	20,000 00	3,227 00	66 00	31 70	7,136 13	3,000 00	502	200	4	9	1,320 00	1,907 00
Vermontville	Eaton	237	8,000 00	1,720 00	61 60	31 80	2,151 22	.....	161	200	2	3	925 00	795 00
Vernon	Shiawassee	198	3,000 00	1,350 00	75 00	30 00	1,682 19	.....	201	200	1	3	750 00	600 00
Vestaburg	Montcalm	176	2,000 00	498 00	40 00	28 60	1,437 13	106 00	110	178	1	1	240 00	258 00
Vicksburg	Kalamazoo	282	7,500 00	1,935 00	60 00	31 66	2,492 63	800 00	250	180	2	3	1,080 00	855 00
Vriesland	Ottawa	173	2,650 00	680 00	40 00	28 00	2,574 02	1,615 25	114	200	1	1	400 00	280 00
Waldron	Hillsdale	102	2,000 00	640 00	50 00	30 00	721 09	.....	87	160	1	1	400 00	240 00
Washington	Macomb	83	1,500 00	585 00	40 00	25 00	735 88	100 00	80	180	1	1	360 00	225 00
Washington Tp. No. 2	Sanilac	212	2,000 00	585 00	45 00	22 50	2,482 89	600 00	158	200	1	1	450 00	135 00
Watervliet	Berrien	131	2,200 00	825 00	66 00	25 00	903 60	.....	92	180	1	1	600 00	225 00
Watrousville	Tuscola	112	800 00	600 00	50 00	33 30	671 28	.....	85	180	1	1	300 00	300 00
Wayland	Allegan	160	5,000 00	1,750 00	100 00	25 00	2,379 58	900 00	362	180	1	4	900 00	850 00

Wayne	Wayne	386	20,000 00	2,300 00	80 00	30 00	4,283 61	6,000 00	320	200	1	5	800 00	1,500 00
Webberville	Ingham	247	2,500 00	855 00	45 00	25 00	983 08	.....	178	180	1	2	405 00	450 00
West Bay City	Bay	2,961	55,000 00	12,468 00	87 60	32 79	20,830 79	1,100 00	2,276	196	3	30	2,630 00	9,838 00
West Branch	Ogemaw	251	1,000 00	950 00	55 00	40 00	1,350 51	.....	186	200	1	1	550 00	400 00
White Cloud	Newaygo	200	4,000 00	850 00	50 00	35 00	2,140 68	2,400 00	122	195	1	1	500 00	350 00
Whitehall	Muskegon	581	30,000 00	3,430 00	67 50	35 80	4,983 42	.....	476	200	2	6	1,350 00	2,080 00
White Pigeon	St. Joseph	302	20,000 00	2,778 00	120 00	32 00	3,957 82	22 00	318	200	1	5	1,200 00	1,600 00
White Rock	Huron	140	2,000 00	405 00	45 00	.....	499 70	.....	101	180	1	.....	405 00	.....
Williamston	Ingham	443	15,000 00	2,300 00	70 00	32 00	7,026 00	6,000 00	325	200	1	6	700 00	1,600 00
Woodland	Barry	110	3,600 00	419 00	40 80	29 00	1,521 65	1,000 00	89	120	2	2	245 00	174 00
Wyandotte	Wayne	1,275	45,000 00	5,030 00	110 00	32 70	7,038 01	.....	513	198	1	12	1,100 00	3,930 00
Ypsilanti	Washtenaw	1,705	55,000 00	11,470 00	100 00	35 90	15,162 21	.....	931	200	5	18	5,000 00	6,470 00
Zeeland	Ottawa	349	4,000 00	1,205 00	55 00	21 80	2,304 22	.....	294	200	1	3	550 00	655 00
Zilwaukee	Saginaw	488	6,000 00	1,700 00	75 00	31 60	2,234 64	.....	360	200	1	3	750 00	950 00
Zutphen	Ottawa	133	1,200 00	271 05	38 72	.....	350 50	.....	80	136	1	.....	271 05	.....

TABLE XVII.

Financial Statistics of Two Hundred and Forty-five Graded Schools, as Reported by Superintendents and Principals, for the School Year 1885-'6.

Districts.	Amount paid Superintendent or Principal.	Amount paid Regular Teachers.	Amount paid Special Teachers.	Total Amount paid for Instruction.	Amount paid for Incidentals.	Total Cost of Schools.	Cost per Capita for Instruction.	Cost per Capita for Incidentals.	Total Cost per Capita.
Addison	$585 00	$304 00	.....	$889 00	$138 00	$1,027 00	$10 76	$1 67	$12 43
Adrian	1,600 00	11,847 00	$625 00	14,072 00	3,660 63	17,732 63	14 00	3 64	17 64
Albion	1,200 00	4,623 00	.....	5,823 00	2,400 00	8,223 00	9 98	4 11	14 09
Allegan	1,100 00	4,337 00	.....	5,437 00	3,162 00	8,599 00	10 32	6 00	16 32
Alma	800 00	1,200 00	.....	2,000 00	1,500 00	3,500 00	6 15	4 61	10 76
Almont	800 00	900 00	.....	1,700 00	258 02	1,958 02	8 81	1 34	10 15
Alpena	2,150 00	9,230 00	.....	11,380 00	4,940 73	16,320 73	12 09	5 24	17 33
Ann Arbor	2,000 00	20,255 30	1,200 00	23,455 30	5,157 71	28,613 01	14 62	3 22	17 84
Armada	1,000 00	804 25	.....	1,804 25	175 00	1,979 25	12 03	1 17	13 20
Atlantic Mine	850 00	800 00	.....	1,650 00	2,511 32	4,161 32	10 31	15 69	26 00
Augusta	600 00	810 00	.....	1,410 00	422 35	1,832 35	8 29	2 81	11 10
Au Sable	700 00	1,900 00	.....	2,600 00	403 74	3,003 74	15 28	2 37	17 64
Bad Axe	656 00	600 00	.....	1,250 00	136 72	1,386 72	5 90	65	6 55
Bancroft	650 00	600 00	.....	1,250 00	758 00	2,008 00	14 16	5 31	19 47
Bangor No. 2 fl	750 00	1,182 00	.....	1,932 00	397 01	2,329 01	9 05	37	9 42
Bangor No. 3 fl	315 00	225 00	.....	540 00	100 00	640 00	5 00	90	5 90
Bath	400 00	390 00	.....	790 00	139 26	929 26	5 57	97	6 54
Battle Creek	1,500 00	12,343 13	900 00	14,743 13	22,355 81	37,098 94	10 98	16 66	27 64
Bay City	2,000 00	26,975 00	700 00	28,975 00	8,568 77	37,543 77	11 16	3 30	14 46
Bear Lake	790 00	.....	.....	790 00	171 91	961 91	4 49	1 11	5 60
Belleville	700 00	460 00	.....	1,160 00	524 66	1,684 66	8 40	3 24	12 29
Berrien Springs	750 00	1,080 00	.....	1,830 00	1,132 35	2,962 35	10 16	6 29	16 45
Birmingham	800 00	1,520 00	.....	2,320 00	697 30	3,017 30	8 46	2 54	11 00
Big Rapids	1,400 00	7,479 00	.....	8,879 00	3,031 73	11,916 73	10 36	3 53	13 89
Blissfield	700 00	800 00	.....	1,500 00	347 92	1,847 92	10 74	2 45	13 19
Bloomingdale	450 00	540 00	.....	990 00	447 75	1,437 75	10 42	4 72	15 14
Breckenridge	270 00	270 00	.....	540 00	.....	.....	9 00	.....	.....
Breedsville	360 00	224 00	.....	584 00	391 58	975 58	7 79	5 21	13 00
Brighton	800 00	1,070 00	.....	1,870 00	533 50	2,403 50	11 19	3 18	14 37
Bronson	750 00	828 00	50 00	1,628 00	383 52	2,213 52	6 84	2 46	9 30
Buchanan	900 00	2,637 50	.....	3,537 50	1,050 41	4,593 91	9 18	2 74	11 92

TABLE XVII.—*Continued.*

Districts.	Amount paid Superintendent or Principal.	Amount paid Regular Teachers.	Amount paid Special Teachers.	Total Amount paid for Instruction.	Amount paid for Incidentals.	Total Cost of Schools.	Cost per Capita for Instruction.	Cost per Capita for Incidentals.	Total Cost per Capita.
Buel	$405 00	.....	.....	$405 00	$130 67	$335 67	$3 49	$1 12	$4 61
Burr Oak	675 00	$900 00	.....	1,575 00	185 00	1,760 00	8 36	99	9 35
Byron	700 00	560 00	.....	1,260 00	250 00	1,510 00	9 33	1 15	10 48
Cadillac	1,000 00	4,050 00	$300 00	5,350 00	1,743 45	7,093 45	10 77	3 5	14 28
Calumet	2,150 00	14,606 76	850 00	17,606 76	8,786 36	26,363 12	12 87	6 40	19 27
Cannonsburg	450 00	225 00	.....	675 00	75 00	750 00	.....	.....	.....
Capac	500 00	500 00	.....	1,000 00	1,559 76	2,559 76	7 19	11 22	18 41
Carleton	450 00	315 00	.....	765 00	98 57	863 57	.....	.....	.....
Caro	1,000 00	2,615 00	.....	3,615 00	1,378 00	4,993 00	10 09	3 85	13 94
Carson City	700 00	880 00	.....	1,580 00	.....	.....	9 67	.....	.....
Carsonville	450 00	180 00	.....	630 00	.....	.....	3 98	.....	.....
Cass City	600 00	1,000 00	.....	1,600 00	2,021 75	3,621 75	.....	.....	.....
Cassopolis	900 00	2,080 00	.....	2,980 00	750 00	3,730 00	11 38	2 62	14 00
Caseville	650 00	650 00	.....	1,300 00	250 00	1,350 00	6 55	1 60	8 15
Cedar Springs	800 00	1,840 00	.....	2,640 00	872 50	3,512 50	12 90	4 25	16 15
Central Mine	1,000 00	797 00	.....	1,797 00	473 72	2,271 22	10 51	2 78	13 29
Centreville	800 00	1,625 00	.....	2,425 00	.....	.....	15 00	.....	.....
Charlotte	1,100 00	7,118 13	180 00	8,398 13	1,845 35	10,243 48	11 00	2 42	13 42
Cheboygan	1,000 00	1,784 00	.....	2,784 00	567 29	3,351 29	11 31	2 30	13 61
Chelsea	850 00	2,000 00	.....	2,850 00	1,000 00	33,850 00	9 20	3 22	12 42
Chesaning	.....	.....	.....	.....	.....	.....	.....	.....	.....
Chickaming	320 00	.....	.....	320 00	30 00	350 00	3 20	30	3 50
Clare	650 00	950 00	.....	1,600 00	350 00	1,950 00	9 40	2 08	11 48
Clarkston	635 00	540 00	.....	1,175 00	203 32	1,378 32	11 30	1 95	13 25
Coldwater	1,200 00	6,810 00	385 00	8,395 00	4,282 00	23,477 00	12 10	5 90	18 00
Colon	600 00	640 00	.....	1,240 00	115 00	1,355 00	9 69	90	10 59
Columbiaville	500 00	300 00	.....	800 00	233 04	11,033 04	4 85	1 41	6 26
Concord	800 00	960 00	.....	1,760 00	435 52	2,195 52	11 65	3 00	14 65
Constantine	1,250 00	2,400 00	.....	3,650 00	350 00	4,000 00	12 30	1 22	13 52
Corunna	900 00	2,170 00	.....	3,070 00	750 00	3,820 00	11 37	2 77	14 14
Crystal Falls	800 00	900 00	.....	1,700 00	439 61	2,139 61	15 60	4 03	19 63
Dearborn	540 00	270 00	.....	810 00	153 64	963 64	4 76	90	5 66
Detroit	4,000 00	193,528 33	3,850 00	201,378 33	45,062 13	248,291 71	13 72	3 78	17 50
De Witt	500 00	270 00	36 00	806 00	236 14	1,042 14	8 60	2 37	10 97
Dexter	900 00	1,700 00	.....	2,600 00	676 59	3,276 59	10 51	2 77	13 28
Dansville	600 00	740 00	.....	1,340 00	425 00	1,765 00	7 60	2 40	10 00

TABLE XVII.—*Continued.*

Districts.	Amount paid Superintendent or Principal.	Amount paid Regular Teachers.	Amount paid Special Teachers.	Total Amount paid for Instruction.	Amount paid for Incidentals.	Total Cost of Schools.	Cost per Capita for Instruction.	Cost per Capita for Incidentals.	Total Cost per Capita.
Douglas	$700 00	$540 00	.....	$1,240 00	$200 00	$1,440 00	$10 00	$1 51	$11 51
Dowagiac	1,050 00	3,548 50	.....	4,598 50	3,736 12	8,334 62	11 53	9 36	20 89
Dryden	700 00	480 00	.....	1,180 00	85 00	1,265 00	9 99	75	10 65
Dundee	700 00	1,950 00	.....	2,650 00	540 00	3,190 00	10 15	2 00	12 15
East Blissfield	600 00	660 00	.....	1,260 00	.....	.....	9 13	.....	.....
East Lake	500 00	850 00	.....	1,350 00	175 77	1,525 77	9 44	1 23	10 67
East Saginaw	2,766 67	37,573 40	$1,407 60	41,747 67	15,719 90	57,467 57	11 93	4 49	10 42
Eaton Rapids	800 00	2,790 00	.....	3,590 00	1,900 00	5,490 00	10 67	5 07	15 74
Ecorse	450 00	253 38	.....	703 38	48 78	752 16	6 28	43	6 72
Edmore	700 00	900 00	.....	1,600 00	180 00	1,780 00	8 20	88	9 08
Elk Rapids	900 00	2,850 00	.....	3,750 00	.....	.....	13 54	.....	.....
Elm Hall	450 00	270 00	.....	720 00	100 00	820 00	8 47	1 17	9 64
Elsie	450 00	522 00	.....	972 00	28 00	1,000 00	6 35	18	6 53
Erie Tp., Dist. 2	.....	701 25	.....	701 25	148 00	849 25	4 10	86	4 96
Escanaba	1,100 00	3,250 00	.....	4,350 00	2,092 53	6,342 53	12 43	6 11	18 54
Essexville	675 00	1,135 00	.....	1,810 00	1,225 23	3,035 23	7 17	6 06	13 23
Evart	1,000 00	1,500 00	.....	2,500 00	350 00	2,850 00	5 97	79	6 76
Evergreen	540 00	756 20	.....	1,296 20	348 14	1,644 34	.....	.....	.....
Fairfield	350 00	175 00	.....	525 00	100 00	625 00	5 25	1 00	6 25
Farmington	525 00	300 00	.....	825 00	150 00	975 00	8 20	1 47	9 67
Fenton	900 00	3,860 00	.....	4,760 00	784 38	5,544 38	13 12	2 13	15 25
Ferrysburg	750 00	1,254 00	.....	2,004 00	150 00	1,404 00	6 24	.....	.....
Flint	1,500 00	14,850 00	240 00	16,590 00	5,461 23	22,051 23	11 71	3 85	15 56
Fowlerville	700 00	1,480 00	.....	2,180 00	500 00	2,680 00	8 97	2 05	11 02
Frankfort	925 00	1,700 00	.....	2,625 00	575 00	3,200 00	11 08	2 42	13 50
Franklin, Dist. 1	600 00	750 00	.....	1,350 00	355 21	1,705 21	13 17	2 60	15 77
Galesburg	600 00	960 00	.....	1,560 00	250 00	1,810 00	9 75	1 56	17 56
Gaylord	600 00	670 00	.....	1,270 00	75 00	1,345 00	6 11	36	6 47
Girard	450 00	270 00	.....	720 00	180 00	900 00	4 50	.....	.....
Grand Haven	1,350 00	7,368 00	.....	8,718 00	3,664 21	12,382 21	9 07	3 61	12 68
Grand Rapids Tp. No. 1	800 00	960 00	.....	1,760 00	705 00	2,465 00	7 00	3 33	10 00
Greenland, oN. 2 fl	700 00	.....	.....	700 00	90 85	790 85	.....	.....	.....
Greenland, No. 1	750 00	350 00	.....	1,100 00	130 20	1,230 20	19 47	2 30	21 77
Greenland, No. 2	600 00	250 00	.....	850 00	161 27	1,011 27	.....	.....	.....
Greenville	1,500 00	5,753 00	.....	7,253 00	2,286 14	9,539 14	11 69	3 69	15 38
Gobleville	450 00	350 00	.....	800 00	85 28	685 28	7 40	1 05	8 45

TABLE XVII.—*Continued.*

Districts.	Amount paid Superintendent or Principal.	Amount paid Regular Teachers.	Amount paid Special Teachers.	Total Amount paid for Instruction.	Amount paid for Incidentals.	Total Cost of Schools.	Cost per Capita for Instruction.	Cost per Capita for Incidentals.	Total Cost per Capita.
Goodrich	$450 00	$150 00	.....	$600 00	.....	.....	.....	.....	.....
Grass Lake	700 00	1,000 00	.....	1,700 00	.....	.....	$11 26	.....	.....
Hancock	1,500 00	5,343 75	$358 75	7,202 50	$2,654 21	$9,856 71	11 86	$6 36	$18 22
Hanover	750 00	1,000 00	.....	1,750 00	387 12	3,137 12	9 05	2 37	11 42
Hart	700 00	775 75	.....	1,475 75	206 40	1,682 15	8 58	1 20	9 78
Hastings	1,000 00	3,990 00	150 00	5,140 00	1,284 00	6,424 81	9 75	2 44	12 19
Hillsdale	1,300 00	4,377 00	323 00	6,000 00	874 37	6,874 37	9 68	1 33	11 02
Holland	1,000 00	3,778 13	270 00	5,048 13	1,861 77	6,909 90	7 15	2 63	9 78
Horton	500 00	468 00	.....	968 00	150 00	1,118 00	12 00	1 18	13 85
Houghton	1,500 00	7,330 00	.....	8,830 00	7,973 70	16,803 70	13 68	12 35	26 03
Howard City	750 00	930 00	.....	1,680 00	522 88	2,202 88	9 28	2 89	12 17
Howell	1,000 00	3,010 00	.....	4,010 00	1,118 32	5,128 32	8 89	2 47	11 36
Hudson	1,000 00	2,615 00	.....	3,615 00	852 85	4,367 85	11 10	2 70	13 80
Hudson, No. 5	900 00	876 00	.....	1,776 00	307 63	2,083 63	.....	.....	.....
Humboldt, No. 1	462 50	.....	.....	462 50	455 98	918 48	6 08	6 99	12 08
Imlay City	800 00	1,080 00	.....	1,880 00	1,359 41	3,239 41	7 49	6 01	13 50
Inverness	650 00	350 00	.....	1,000 00	200 00	1,200 00	9 80	2 00	11 80
Ionia	1,500 00	9,116 60	.....	10,616 60	8,131 15	18,747 75	13 86	10 61	24 47
Iron Mountain	1,200 00	5,000 55	.....	6,200 55	2,263 11	8,463 66	11 23	4 09	15 32
Ironton	400 00	300 00	.....	700 00	352 00	1,052 00	6 06	3 38	9 96
Jackson, No. 1	1,800 00	19,390 85	700 00	21,890 85	6,611 59	28,502 44	13 82	4 17	17 99
Jasper	320 00	325 00	.....	645 00	184 62	729 62	5 92	2 00	7 92
Jonesville	1,000 00	1,890 00	.....	2,890 00	1,186 89	4,076 89	12 25	3 49	15 74
Kalamazoo	2,000 00	21,570 53	1,000 00	24,570 53	6,333 09	30,903 62	12 23	3 15	15 38
Kalkaska	800 00	1,340 00	.....	2,140 00	68 75	2,208 75	12 44	40	12 84
Laingsburg	600 00	700 00	.....	1,300 00	200 00	1,500 00	10 28	1 35	10 46
Lake Linden	1,300 00	6,151 25	700 00	8,151 25	3,245 33	11,396 58	18 20	7 24	25 44
Lake View	700 00	1,000 00	.....	1,700 00	365 00	2,065 00	8 72	1 87	9 59
L'Anse	900 00	1,650 00	.....	2,550 00	844 59	3,394 59	10 49	3 47	13 96
Lapeer	1,050 00	4,700 00	.....	5,750 00	700 00	6,450 00	10 19	1 50	11 70
Lawrence	700 00	828 00	57 00	1,585 00	175 17	1,760 17	.....	.....	.....
Leland	500 00	270 00	.....	770 00	50 00	820 00	9 63	63	10 26
Leslie	800 00	1,300 00	.....	2,100 00	461 28	2,561 28	6 30	1 16	6 46
Lexington	650 00	945 72	.....	1,595 72	311 19	1,906 91	7 22	1 38	8 60
Lowell	900 00	2,740 00	.....	3,640 00	1,053 81	4,693 81	.....	.....	.....
Ludington	1,300 00	9,890 00	.....	11,190 00	4,655 47	15,845 47	11 06	4 65	15 71

TABLE XVII.—*Continued.*

Districts.	Amount paid Superintendent or Principal.	Amount paid Regular Teachers.	Amount paid Special Teachers.	Total Amount paid for Instruction.	Amount paid for Incidentals.	Total Cost of Schools.	Cost per Capita for Instruction.	Cost per Capita for Incidentals.	Total Cost per Capita.
Lyons	$650 00	$918 00	.....	$1,568 00	$280 30	$1,848 30	$11 54	$2 07	$13 61
Mancelona	540 00	1,215 00	.....	1,755 00	401 00	2,156 00	4 50	1 27	5 77
Manton	555 00	532 50	.....	1,087 50	336 25	1,423 75	7 15	2 21	9 36
Marcellus	450 00	630 00	.....	1,080 00	378 00	1,458 00	7 00	2 50	9 50
Marine City	750 00	1,250 50	.....	2,000 50	911 52	2,912 02	10 70	3 12	13 82
Marquette	1,650 00	9,098 75	$225 00	10,973 75	2,957 25	13,931 00	10 60	2 85	13 45
Marysville	360 00	270 00	.....	630 00	102 88	732 88	.....	.....	.....
Mason	1,000 00	2,886 00	1,175 25	5,061 25	1,607 00	6,668 25	11 60	3 00	14 60
Mattawan	144 40	315 80	.....	460 20	125 63	585 83	.....	.....	.....
Mayville	500 00	286 00	.....	786 00	60 00	846 00	6 55	50	7 05
Mears	414 00	252 00	.....	666 00	44 02	710 02	13 70	91	14 61
Memphis	700 00	560 00	.....	1,260 00	920 00	2,180 00	7 20	6 33	13 55
Mendon	750 00	1,375 00	.....	2,125 00	397 00	2,522 00	11 61	2 17	13 78
Metamora	540 00	468 00	.....	1,008 00	205 60	1,213 60	11 72	2 39	14 11
Michigamme	800 00	1,292 50	.....	2,092 50	1,186 63	3,279 13	20 94	6 29	27 23
Middleville	700 00	980 00	117 00	1,797 00	2,928 70	4,725 70	9 45	15 41	24 86
Midland No. 1	.....	640 00	.....	640 00	223 98	863 98	7 90	2 76	10 66
Midland No. 3	1,000 00	3,081 00	.....	4,081 00	1,939 36	6,020 36	10 00	4 75	14 75
Milford	900 00	1,310 00	.....	2,210 00	803 07	3,013 07	8 77	3 19	11 96
Monroe	1,200 00	3,600 00	.....	4,800 00	744 17	5,544 17	10 81	1 60	12 41
Mt. Clemens	1,100 00	2,940 00	.....	4,040 00	1,600 00	5,640 00	7 93	3 14	11 07
Mt. Pleasant	1,000 00	2,610 00	.....	3,610 00	2,307 56	5,917 56	10 31	7 59	17 90
Morenci	600 00	1,283 50	.....	1,883 50	575 34	2,458 84	6 04	1 84	7 88
Morley	560 00	400 00	.....	960 00	100 00	1,060 00	.....	.....	.....
Muir	700 00	576 00	.....	1,276 00	403 00	1,679 00	19 19	3 21	13 40
Napoleon	700 00	845 00	.....	1,545 00	425 00	1,970 00	8 00	2 38	10 38
Nashville	700 00	1,093 00	.....	1,793 00	310 00	2,103 00	6 86	1 18	8 04
National Mine	900 00	850 00	.....	1,750 00	386 00	2,136 00	10 41	2 26	12 67
Newaygo	1,000 00	1,620 00	.....	2,620 00	175 00	2,795 00	8 70	58	9 28
Newberry	550 00	400 00	.....	950 00	2,841 00	3,791 00	8 64	25 83	34 47
New Buffalo	480 00	540 00	.....	1,020 00	304 48	1,324 48	6 90	1 92	8 82
New Groningen	450 00	105 00	.....	555 00	123 92	678 92	8 48	1 96	9 44
New Haven	540 00	432 00	.....	972 00	296 23	1,268 23	7 61	2 38	9 99
New Holland	480 00	120 00	.....	600 00	127 24	727 24	7 60	1 61	9 21
New Hudson	485 00	525 00	.....	1,010 00	125 00	1,035 00	10 10	2 40	12 50
Niles	1,300 00	7,649 37	.....	8,949 37	3,068 17	12,017 54	12 85	4 40	17 25

TABLE XVII.—*Continued.*

Districts.	Amount paid Superintendent or Principal.	Amount paid Regular Teachers.	Amount paid Special Teachers.	Total Amount paid for Instruction.	Amount paid for Incidentals.	Total Cost of Schools.	Cost per Capita for Instruction.	Cost per Capita for Incidentals.	Total Cost per Capita.
North Branch	$600 00	$600 00	.....	$1,200 00	$227 98	$1,427 98	$8 88	$1 69	$10 57
Northport	450 00	370 00	.....	820 00	.....	.....	6 72	.....	.....
Northville	700 00	1,400 00	.....	2,100 00	.....	.....	9 10	.....	.....
Okemos	200 00	437 00	.....	637 00	138 63	775 63	.....	.....	.....
Olivet	650 00	504 00	.....	1,154 00	378 79	1,532 79	9 42	3 10	12 50
Onondaga	500 00	250 00	.....	750 00	100 00	850 00	10 00	.....	.....
Opechee	900 00	1,050 00	.....	1,950 00	.....	.....	.....	.....	.....
Orion	500 00	280 00	.....	780 00	90 00	870 00	9 25	1 00	10 25
Ortonville	550 00	220 00	.....	770 00	157 11	.....	9 78	2 18	11 96
Oscoda	1,000 00	2,250 00	.....	3,250 00	763 13	4,013 13	12 40	2 91	15 31
Osseo	300 00	200 00	.....	500 00	25 00	525 00	4 16	20	4 37
Otsego	900 00	1,875 00	.....	2,775 00	797 32	3,572 32	10 35	2 90	13 25
Ovid	1,135 47	2,092 00	.....	3,227 47	1,430 38	4,657 85	8 75	3 86	12 61
Owosso	1,400 00	7,200 50	.....	8,600 50	6,472 25	15,072 75	11 56	8 63	20 13
Oxford	750 00	1,180 00	.....	1,930 00	371 68	2,301 68	11 35	2 15	13 50
Palo	550 00	580 00	.....	1,130 00	125 00	1,255 00	12 98	1 44	14 43
Parma	900 00	1,016 00	.....	1,916 00	2,236 60	4,152 60	8 31	9 85	18 16
Paw Paw	1,200 00	2,520 00	$86 00	3,806 00	860 90	4,666 90	26 71	2 01	28 72
Perry	700 00	622 00	.....	1,322 00	.....	.....	12 57	.....	.....
Potterville	450 00	540 00	.....	990 00	248 83	1,238 83	7 28	1 83	9 12
Port Huron	1,500 00	12,500 00	.....	14,000 00	1,800 00	15,800 00	8 82	1 13	9 95
Port Hope	550 00	300 00	850 00	1,700 00	191 68	1,891 68	6 07	1 55	7 62
Phoenix	1,000 00	.....	.....	1,000 00	307 00	1,307 00	16 66	5 11	21 77
Plainwell	900 00	2,103 40	.....	3,003 40	686 65	3,690 05	7 95	1 82	9 77
Pontiac	1,500 00	8,830 00	.....	10,330 00	4,812 87	15,142 87	12 90	6 01	18 91
Port Austin	700 00	600 00	.....	1,300 00	300 43	1,600 43	11 63	2 69	14 32
Port Crescent	500 00	300 00	.....	800 00	193 00	993 00	15 07	3 64	18 75
Reed City	900 00	2,100 00	.....	3,000 00	400 00	3,400 00	10 00	1 20	11 20
Rockford	700 00	1,000 00	.....	1,700 00	420 00	2,120 00	7 69	1 90	9 50
Rockland	1,200 00	1,900 00	.....	3,100 00	613 44	3,713 44	18 60	3 69	22 29
Rogers City	600 00	650 00	.....	1,250 00	300 00	1,550 00	6 39	.....	.....
Royal Oak	325 00	240 00	.....	565 00	318 00	883 00	4 92	2 88	7 80
St. Charles	731 25	700 00	.....	1,431 25	133 37	1,564 62	11 07	1 02	12 89
St. Clair	1,100 00	3,235 00	.....	4,335 00	2,250 32	6,585 32	10 47	5 43	16 00
St. Johns	1,200 00	4,220 00	192 00	5,612 00	1,968 54	7,580 54	11 00	3 85	14 85
St. Joseph	1,000 00	4,265 00	.....	5,265 00	6,454 31	11,719 31	10 34	12 80	23 10

TABLE XVII.—*Continued.*

Districts.	Amount paid Superintendent or Principal.	Amount paid Regular Teachers.	Amount paid Special Teachers.	Total amount paid for Instruction.	Amount paid for Incidentals.	Total Cost of Schools.	Cost per Capita for Instruction.	Cost per Capita for Incidentals.	Total Cost per Capita.
St. Louis	$1,000 00	$3,290 00	.....	$4,290 00	$1,000 00	$5,290 00	$8 90	$2 08	$10 98
Saline	900 00	1,640 00	.....	2,540 00	597 12	3,137 12	11 86	2 79	14 65
Salt River	360 00	280 00	.....	640 00	166 83	806 83	5 12	1 33	6 45
Sand Beach	700 00	1,227 00	.....	1,927 00	512 96	2,499 96	9 64	2 86	13 50
Sand Lake	600 00	540 00	.....	1,140 00	733 94	1,873 94	12 66	8 15	20 81
Saranac	625 00	855 00	.....	1,480 00	409 08	1,889 08	7 21	2 00	9 21
Sault Ste. Marie	900 00	2,055 00	.....	2,955 00	1,522 39	4,477 39	9 10	4 38	13 48
Sherwood	360 00	270 00	$104 00	734 00	156 92	890 92	6 00	1 30	7 30
South Haven	700 00	1,596 80	.....	2,296 80	1,521 34	3,818 14	5 41	9 00	14 41
Sparta	850 00	860 00	.....	1,710 00	327 98	2,037 98	7 10	1 36	8 46
Spring Lake	1,000 00	3,082 00	.....	4,082 00	581 06	4,663 06	9 79	1 39	11 18
Springport	700 00	650 00	.....	1,350 00	244 06	1,594 06	12 54	2 18	14 72
Stanton	1,100 00	3,003 00	.....	4,103 00	894 00	4,997 00	11 60	2 50	14 10
Summerfield	450 00	477 00	.....	927 00	231 83	1,158 00	6 97	1 74	8 71
Tawas City	800 00	1,200 00	.....	2,000 00	305 00	2,305 00	10 80	1 10	11 90
Three Oaks	640 00	840 00	.....	1,480 00	300 00	1,780 00	10 00	1 00	11 00
Three Rivers	1,200 00	2,730 00	.....	3,930 00	897 67	4,827 67	.....	.....	.....
Tuscola	450 00	220 00	.....	670 00	.....	.....	5 50	.....	.....
Vassar	1,000 00	2,240 00	.....	3,240 00	631 43	3,871 83	9 31	1 87	11 18
Vermontville	750 00	970 00	.....	1,720 00	95 15	1,815 15	7 70	42	8 10
Vernon	750 00	600 00	.....	1,350 00	332 19	1,682 19	8 13	2 00	10 13
Vriesland	400 00	280 00	.....	680 00	122 35	802 35	8 00	1 42	9 42
Watertown	341 34	280 51	.....	621 85	171 01	792 86	9 28	2 55	11 83
Watervliet	600 00	225 00	.....	825 00	77 40	902 40	8 41	79	9 20
Wayland	900 00	850 00	.....	1,750 00	220 13	1,970 13	7 58	92	8 30
Webberville	450 00	450 00	.....	900 00	50 00	950 00	3 00	.....	.....
West Bay City	1,500 00	10,968 00	.....	12,468 00	8,362 79	20,830 79	9 15	3 63	12 78
White Cloud	500 00	350 00	.....	850 00	92 72	942 72	6 54	1 19	7 73
Whitehall	1,000 00	2,430 00	.....	3,430 00	1,386 60	4,816 60	9 22	3 72	12 94
Williamston	700 00	1,600 00	.....	2,300 00	840 00	3,140 00	9 58	3 50	13 08
Wyandotte	1,100 00	3,950 00	50 00	5,100 00	950 00	6,050 00	13 60	2 50	16 10
Ypsilanti	1,500 00	8,970 00	1,000 00	11,470 00	3,692 21	15,162 21	16 82	5 41	22 23
Zeeland	550 00	655 00	.....	1,205 00	525 75	1,730 75	5 08	2 21	7 29
Zilwaukee	750 00	950 00	.....	1,700 00	500 00	2,200 00	8 00	2 34	10 34

TABLE XVIII.

Miscellaneous Statistics of Two Hundred and Forty-five Graded Schools, as Reported by Superintendents and Principals, for the School Year 1885-6.

Districts.	Total Enrollment.	Average No. Belonging.	Average Daily Attendance.	No. of Men Teachers.	No of Women Teachers.	No of Special Teachers.	Average No. of Pupils to each Teacher.	Portion of Superintendent's Time given to Supervision.	Number of Pupils Studying—				Is Special Instruction given in—		
									Latin.	Greek.	French.	German.	Vocal Music?	Drawing?	Penmanship?
Addison	103	82	62	1	2	....	28	.....	0	0	0	0	no	no	yes
Adrian	1,654	1,005	942	3	28	1	34	all	32	0	7	28	no	yes	yes
Albion	906	583	556	1	15	....	38	3-4	0	0	0	0	no	yes	yes
Allegan	731	527	405	1	13	....	38	1-4	20	0	0	12	no	no	no
Alma	410	325	272	1	5	....	54	1-4	4	0	0	8	no	no	no
Almont	269	193	179	1	3	....	48	1-10	7	0	0	0	no	no	yes
Alpena	1,713	941	911	2	25	....	38	2-3	27	0	0	10	no	no	no
Ann Arbor	1,988	1,604	1,538	6	36	2	39	all	216	56	52	107	yes	yes	yes
Armada	212	150	142	1	3	....	....	1-12	5	0	0	0	no	yes	yes
Atlantic Mine	198	160	138	1	2	....	53	1-10	0	0	0	0	no	no	no
Augusta	196	161	150	1	3	....	40	1-10	0	0	0	0	no	no	no
An Sable	219	170	155	1	3	....	32	.....	0	0	0	0	no	no	yes
Bad Axe	287	211	149	1	2	....	71	.....	0	0	0	10	no	no	yes
Bancroft	186	120	145	1	2	....	40	1-10	0	0	0	0	no	yes	yes
Bangor No. 2 fl	274	210	198	1	4	....	55	1-10	0	0	0	0	no	no	no
Bangor No. 3 fl	88	70	69	....	2	....	35	.....	....	....	....	....	....	....	....
Bath	143	143	103	1	2	....	48	.....	0	0	0	0	no	no	yes
Battle Creek	2,141	1,343	1,238	3	34	1	35	all	60	8	0	23	yes	yes	yes
Bay City	3,657	2,595	2,457	2	64	1	40	all	23	0	23	72	yes	no	no
Bear Lake	165	121	99	1	2	....	40	.....	....	....	....	....	....	....	....
Belleville	167	138	130	1	3	....	46	.....	0	0	0	0	no	no	no
Berrien Springs	210	180	158	1	4	....	36	1-5	....	....	....	....	....	....	....
Big Rapids	1,359	857	765	1	21	....	42	2-3	15	0	0	10	no	no	yes
Birmingham	451	274	250	1	5	....	47	1-5	18	0	0	17	yes	yes	yes
Blissfield	220	140	148	1	3	....	35	1-32	8	0	0	0	no	no	yes
Bloomingdale	170	95	117	1	2	....	32	1-20	0	0	0	0	no	no	no
Breckenridge	94	60	.....	....	2	....	30	.....	0	0	0	0	no	no	yes
Breedsville	95	75	60	1	1	....	30	.....	0	0	0	0	no	yes	yes
Brighton	304	163	151	1	4	....	32	.....	0	0	0	0	no	yes	yes
Bronson	266	238	227	1	3	1	59	1-10	0	0	0	0	yes	yes	yes
Buchanan	497	385	362	2	7	....	40	1-4	4	0	0	0	no	yes	yes

TABLE XVIII.—*Continued.*

Districts.	Total Enrollment.	Average No. Belonging.	Average Daily Attendance.	No. of Men Teachers.	No. of Women Teachers.	No. of Special Teachers.	Average No. of Pupils to each Teacher.	Portion of Superintendent's Time given to Supervision.	Number of Pupils Studying—				Is Special Instruction given in—		
									Latin.	Greek.	French.	German.	Vocal Music?	Drawing?	Penmanship?
Buel	82	63	44	1	....	....	63	.....	....	....	....	....	....	....	....
Burr Oak	186	178	.....	1	4	....	37	.....	....	....	....	....	....	....	....
Byron	217	135	102	1	2	....	45	.....	....	....	....	....	....	....	....
Cadillac	883	496	455	2	10	1	36	all	0	0	0	8	yes	no	no
Calumet	1,894	1,368	1,166	6	21	1	54	2-3	....	....	30	12	yes	no	no
Cannonsburg	89	.....	75	1	1	....	35	.....	0	0	0	0	....	....	yes
Capac	198	139	116	1	2	....	46	1-16	....	....	....	....	....	....	....
Carleton	132	.....	78	1	1	....	....	.....	....	....	....	....	....	....	....
Caro	505	358	323	1	8	....	40	1-3	0	0	0	0	no	no	yes
Carson City	208	163	182	1	3	....	41	.....	....	....	....	....	....	....	yes
Carsonville	158	140	91	1	1	....	70	.....	....	....	....	....	....	....	....
Caseville	168	128	150	2	1	....	56	.....	....	....	....	....	yes	yes	yes
Cass City	211	156	.....	2	2	....	39	.....	0	0	0	0	yes	no	yes
Cassopolis	269	265	221	1	6	....	36	1-8	5	0	0	14	no	yes	yes
Cedar Springs	352	205	190	1	5	....	34	1-8	6	0	0	0	no	yes	yes
Central Mine	214	175	135	1	2	....	56	.....	....	....	....	....	....	....	....
Centerville	218	160	143	1	5	....	26	1-6	2	0	0	8	no	no	no
Charlotte	1,205	764	724	....	19	1	38	7-8	34	0	0	0	yes	no	no
Cheboygan	409	246	228	1	5	....	41	1-11	0	0	0	0	yes	yes	yes
Chelsea	429	310	228	1	7	....	37	1-10	0	0	0	0	yes	yes	yes
Chesaning	424	243	224	....	....	....	....	.....	....	....	....	....	....	....	....
Chickaming	100	70	70	....	1	....	70	.....	0	0	0	0	no	no	yes
Clare	281	168	157	1	3	....	42	.....	....	....	....	....	....	....	....
Clarkston	147	104	105	1	2	....	34	.....	0	0	0	0	no	yes	yes
Coldwater	1,212	815	779	3	20	1	33½	2-3	35	6	0	24	no	no	yes
Colon	215	128	118	1	2	....	39	.....	....	....	....	....	....	....	....
Columbiaville	165	99	99	1	1	....	49	0	0	0	0	0	no	yes	yes
Concord	190	151	142	1	3	....	50	.....	....	....	....	....	....	....	yes
Constantine	476	286	282	1	7	....	25	2-7	25	0	0	35	yes	no	yes
Corunna	296	270	255	1	7	....	33	1-10	3	0	0	2	no	no	no
Crystal Falls	173	109	95	1	2	....	36	1-100	0	0	0	0	no	no	yes
Dansville	176	146	108	1	3	....	37	1-50	0	1	0	0	no	yes	no
Dearborn	170	.....	124	1	1	....	62	.....	....	....	....	....	....	....	....
Detroit	19,458	14,534	13,584	16	323	3	43	all	234	22	101	153	no	yes	no
De Witt	109	87	87	1	1	....	43	.....	....	....	....	....	no	yes	yes

TABLE XVIII.—*Continued.*

Districts.	Total Enrollment.	Average No. Belonging.	Average Daily Attendance.	No. of Men Teachers.	No. of Women Teachers.	No. of Special Teachers.	No. of Pupils to each Teacher.	Portion of Superintendent's time given to Supervision.	No. of Pupils Studying—				Is Special Instruction given in—		
									Latin.	Greek.	French.	German.	Vocal Music?	Drawing?	Penmanship?
Dexter	300	243	219	1	6	....	35	1-15	8	0	0	4	no	yes	yes
Douglas	211	124	102	1	2	....	31	.....	....	....	....	....	....	....	....
Dowagiac	585	399	385	4	7	....	39	1-2	2	0	0	3	no	no	yes
Dryden	156	128	112	1	2	....	42	0	0	0	0	0	no	no	yes
Dundee	372	267	228	1	6	....	37	1-8	0	0	0	0	yes	yes	yes
East Blissfield	209	137	119	1	2	....	....	.....	....	....	....	....	....	....	....
East Lake	219	143	104	....	3	....	37	1-10	0	0	0	0	no	no	yes
East Saginaw	4,815	3,498	3,223	11	72	2	44	all	50	10	....	1000	no	yes	yes
Eaton Rapids	572	375	341	1	9	....	36	1-4	13	0	0	4	no	no	no
Ecorse	208	112	97	1	1	....	56	1-10	0	0	0	0	yes	yes	yes
Edmore	364	229	203	1	3	....	50	0	0	0	0	0	no	yes	yes
Elk Rapids	404	277	260	1	7	....	34	1-5	0	0	0	0	no	no	yes
Elm Hall	110	85	70	1	1	1	28	.....	....	....	....	....	yes	yes	yes
Elsie	225	153	189	1	2	....	....	.....	....	....	....	....	....	....	....
Erie	396	342	276	1	8	....	38	1-3	....	....	....	20	no	no	no
Escanaba	171	.....	.....	2	....	....	85	.....	0	0	0	0	no	no	no
Essexville	320	252	234	1	3	....	63	.....	....	....	....	....	....	....	....
Evart	494	441	366	1	5	....	73	1-6	0	0	0	0	yes	yes	yes
Evergreen	257	150	130	1	3	....	39	.....	0	0	0	0	no	no	no
Fairfield	81	65	51	1	1	....	32	.....	....	....	....	....	....	....	....
Farmington	152	102	85	1	2	....	34	.....	2	0	0	4	no	yes	yes
Fenton	491	363	332	2	9	....	34	1-2	14	0	2	8	no	no	no
Ferrysburg	225	153	125	1	2	....	51	.....	....	....	....	....	....	....	....
Flint	2,748	1,417	1,348	2	36	1	37	all	110	6	29	40	no	no	yes
Fowlerville	295	243	203	1	6	....	36	1-8	....	....	....	....	....	....	....
Frankfort	341	237	213	1	5	....	38	1-6	....	....	....	....	....	....	....
Franklin	177	136	103	1	2	....	49	.....	0	0	0	0	no	no	no
Galesburg	187	160	153	1	3	....	40	1-25	3	0	0	18	yes	yes	yes
Gaylord	208	160	75	1	2	....	53	1 hour per week	0	0	0	0	no	no	yes
Girard	102	89	82	1	1	....	44	1-8	0	0	0	0	no	no	yes
Gobleville	135	.....	.....	1	2	....	....	.....	....	....	....	....	....	....	....
Goodrich	81	74	60	1	1	....	37	.....	....	....	....	....	....	....	....
Grand Haven	1,556	1,016	967	2	20	1	44	3 4	14	....	....	....	yes	no	no
Grand Rapids Tp. No. 1	253	218	95	1	3	....	53	.....	....	....	....	....	....	....	....
Grass Lake	211	151	138	1	4	....	34	1-16	8	0	0	0	no	no	no

TABLE XVIII.—*Continued.*

Districts.	Total Enrollment.	Average No. Belonging.	Average Daily Attendance.	No. of Men Teachers.	No. of Women Teachers.	No. of Special Teachers.	No. of Pupils to each Teacher.	Portion of Superintendent's time given to Supervision.	No. of Pupils Studying—				Is Special Instruction given in—		
									Latin.	Greek.	French.	German.	Vocal Music?	Drawing?	Penmanship?
Greenland Tp. No. 1	79	56	46	1	1	....	28	.....	0	0	0	0	no	no	yes
Greenland Tp. No. 2 fl	40	32	28	1	....	....	32	.....	0	0	0	0	yes	no	yes
Greenland Tp. No. 2	68	55	41	1	1	....	37	.....	0	0	0	0	yes	no	yes
Greenville	883	620	595	2	14	....	40	4-7	40	6	12	2	no	no	no
Hancock	607	417	392	2	9	....	38	2-5	10	C	0	10	yes	no	no
Hanover	195	163	138	1	3	....	41	1-50	0	0	0	0	no	no	no
Hart	216	172	151	1	3	....	43	1-10	0	0	0	0	yes	no	yes
Hastings	852	527	474	1	12	1	40	1-4	20	0	0	12	yes	no	no
Hillsdale	840	580	532	2	11	....	43	1-2	27	0	0	0	yes	yes	no
Holland	891	706	662	2	13	2	50	1-2	0	0	0	0	yes	yes	yes
Horton	108	81	76	1	2	....	27	1-32	0	0	0	0	no	no	yes
Houghton	819	645	587	3	13	....	40	3-10	0	0	0	0	no	no	no
Howard City	221	181	169	1	3	....	45	1-12	0	0	0	0	no	yes	yes
Howell	743	451	414	1	9	....	44	1-8	8	0	0	10	no	no	no
Hudson	405	314	374	2	6	....	40	1-2	8	0	0	4	no	no	yes
Hudson Dist. 5	185	155	162	1	3	....	39	.....	0	0	0	0	no	no	yes
Humboldt	128	76	48	....	1	....	76	.....	....	....	....	....	....	....	....
Imlay City	455	251	230	1	4	....	50	none	0	0	0	0	no	no	no
Inverness	119	103	64	1	1	....	51	.....	....	....	....	....	yes	yes	yes
Ionia	1,279	766	717	2	21	1	35	1-2	38	8	0	12	yes	yes	yes
Iron Mountain	1,154	552	457	1	11	....	46	1-2	15	0	0	0	no	no	no
Ironton	104	104	69	1	1	....	52	.....	0	0	0	0	no	no	yes
Jackson	2,335	1,584	1,458	3	37	1	40	all	39	2	5	56	no	yes	yes
Jasper	91	90	80	1	1	....	46	none	0	0	0	0	no	no	no
Jonesville	340	145	132	1	5	..	24	1-4	4	0	0	7	no	no	no
Kalamazoo	3,224	2,008	1,870	2	57	1	35	all	65	3	18	9	yes	no	yes
Kalkaska	244	172	135	1	3	....	43	1-10	0	0	0	0	yes	yes	yes
Laingsburg	218	148	108	1	3	....	37	1-10	0	0	0	2	no	no	no
Lake Linden	848	448	412	2	11	1	41	1-3	9	0	0	0	yes	no	no
Lakeview	335	195	166	1	3	....	38	1-10	0	0	0	0	no	no	no
L'Anse	243	243	92	1	7	....	38	.....	7	0	0	0	no	no	yes
Lapeer	839	564	536	2	13	....	37	1-2	23	0	0	19	no	yes	yes
Lawrence	175	.....	.....	1	4	....	35	.....	0	0	0	0	no	no	yes
Leland	97	90	.....	1	1	....	45	.....	....	....	....	....	....	....	yes
Leslie	377	289	274	2	4	....	48	1-20	4	0	1	8	yes	no	no

TABLE XVIII.—*Continued.*

Districts.	Total Enrollment.	Average No. Belonging.	Average Daily Attendance.	No. of Men Teachers.	No. of Women Teachers.	No. of Special Teachers.	No. of Pupils to each Teacher.	Portion of Superintendent's Time given to Supervision.	No. of Pupils Studying—				Is Special Instruction given in—		
									Latin.	Greek.	German.	French.	Vocal Music?	Drawing?	Penmanship?
Lowell	652	372	349	2	7	....	41	1-8	6	0	0	0	no	no	no
Lexington	245	225	178	2	3	....	45	none	0	0	0	0	no	no	no
Ludington	1,504	1,002	936	3	21	....	44	2-3	27	0	0	6	no	no	no
Lyons	166	135	124	1	3	...	45	.....	0	0	0	0	no	no	yes
Mancelona	393	315	198	2	3	....	63	1-5	0	0	0	0	no	no	yes
Manton	152	94	97	1	2	....	31	.....	....	....	....	....	....	....	....
Marcellus	201	153	127	1	2	....	51	.....	....	....	....	....	....	....	yes
Marine City	292	246	198	1	5	....	41	.....	....	....	....	....	no	no	....
Marquette	1,439	1,035	937	1	20	1	49	5-11	218	0	0	0	yes	no	no
Marysville	99	53	58	....	2	....	26	.....	0	0	0	0	no	no	no
Mason	566	334	318	1	9	....	35	1-3	18	0	0	5	no	no	no
Mattewan	88	68	.....	....	2	....	34	.....	....	....	....	....	....	....	....
Mayville	125	100	100	2	1	....	33	1-48	0	0	0	0	no	no	no
Mears	101	48	48	1	1	....	24	1-6	0	0	0	0	no	no	yes
Memphis	197	146	107	1	3	....	36	.....	0	0	0	0	no	no	no
Mendon	242	183	158	1	4	....	36	1-10	0	0	0	0	no	no	yes
Metamora	141	99	86	1	2	....	33	.....	0	0	0	0	no	no	yes
Michigamme	296	95	57	1	3	....	21	.....	....	....	....	....	....	....	....
Middleville	210	190	176	1	3	1	47	1-20	....	....	....	....	....	....	yes
Midland	127	81	71	....	3	....	27	.....	0	0	0	0	no	no	yes
Midland Dist. 3	702	408	359	1	8	....	35	1 6	18	....	....	....	....	....	....
Milford	358	251	228	1	5	....	42	1-20	0	0	0	0	no	no	no
Monroe	622	444	400	1	12	....	37	3-7	38	3	1	4	....	....	....
Morenci	336	312	269	6	5	....	52	1-6	....	....	....	....	....	....	....
Mt. Clemens	753	478	509	1	10	....	43	1-7	1	0	0	11	no	no	no
Mount Pleasant	475	350	296	1	7	....	43	1-6	0	0	12	0	yes	no	yes
Muir	198	125	121	1	2	....	41	1-10	....	....	....	....	....	....	....
Napoleon	179	117	123	2	2	....	36	1-10	0	0	0	0	no	no	yes
Nashville	261	258	187	1	4	....	51	.....	0	0	0	0	no	no	no
National Mine	197	168	100	1	2	....	56	.....	0	0	6	0	no	no	yes
Newaygo	360	243	195	1	3	....	60	1-10	0	0	0	0	no	no	no
Newberry	110	103	77	1	1	....	51	.....	....	....	....	....	....	....	....
New Buffalo	210	148	.....	1	2	....	49	.....	0	0	0	0	no	no	yes
New Groningen	86	63	55	1	1	....	32	.....	....	....	....	....	....	....	....

TABLE XVIII.—*Continued.*

Districts.	Total Enrollment.	Average No. Belonging.	Average Daily Attendance.	No. of Men Teachers.	No. of Women Teachers.	No. of Special Teachers.	No. of Pupils to each Teacher.	Portion of Superintendent's Time given to Supervision.	No. of Pupils Studying—				Is Special Instruction given in—		
									Latin.	Greek.	German.	French.	Vocal Music?	Drawing?	Penmanship?
New Haven	180	124	107	1	2	....	41	1-10	1	0	3	0	yes	no	yes
New Holland	114	79	67	1	1	....	39	1-8	0	0	0	0	no	no	no
New Hudson	59	52	.....	1	1	....	26	.....	....	....	....	....	....	....	yes
Niles	968	696	651	2	20	....	33	all	10	0	4	0	no	no	no
North Branch	201	135	122	1	2	....	45	1-30	....	....	....	....	....	....	....
Northport	193	122	95	....	3	....	40	.....	....	....	....	....	....	....	....
Northville	434	230	214	1	5	....	36	.....	13	....	8	1	no	no	no
Okemos	106	.....	91	1	1	....	45	.....	....	....	....	....	....	....	....
Olivet	164	122	107	1	2	....	43	1-24	0	0	0	0	no	no	no
Onondaga	88	.....	54	1	1	....	....	1-16	....	....	....	....	....	....	....
Opeechee	195	.....	60	1	3	....	20	1-16	....	....	....	....	....	....	....
Orion	150	90	76	1	1	....	45	.....	0	0	0	0	no	no	no
Ortonville	134	72	61	1	1	....	36	.....	....	....	....	....	....	....	....
Oscoda	509	262	262	1	6	....	34	.....	....	....	....	....	....	....	....
Osseo	86	.....	.....	1	1	....	....	.....	....	....	....	....	yes	yes	no
Otsego	358	268	258	1	6	....	38	1-6	....	....	....	....	no	no	yes
Ovid	499	368	251	1	7	....	35	1-12	4	....	....	....	no	no	no
Owosso	1,098	747	672	5	14	....	40	2-3	48	0	17	0	no	no	no
Oxford	223	170	120	1	4	....	35	.....	....	....	1	10	no	yes	yes
Palo	99	87	79	1	2	....	29	.....	....	....	....	....	....	....	....
Parma	254	228	199	3	2	....	45	.....	....	....	....	....	....	....	yes
Paw Paw	429	306	292	1	7	....	38	1-3	35	....	17	....	no	no	no
Perry	172	105	112	1	2	....	35	1-15	....	....	....	....	....	....	yes
Phœnix	108	60	46	1	....	....	60	.....	0	0	0	0	no	no	....
Plainwell	441	376	305	1	7	....	47	1-5	4	0	0	0	yes	no	no
Pontiac	1,096	800	774	3	19	....	36	2-3	41	6	25	22	no	no	no
Port Austin	174	112	101	1	2	....	37	1-10	....	....	....	....	....	yes	yes
Port Crescent	116	80	64	1	1	....	40	.....	....	....	....	....	no	no	yes
Port Hope	168	124	84	1	1	....	62	.....	....	....	....	....	....	....	....
Port Huron	2,284	1,585	.....	1	34	....	48	all	23	3	14	6	no	no	no
Potterville	246	136	132	....	3	....	45	.....	....	....	....	....	....	....	....
Reed City	450	365	321	2	6	....	45	.....	....	....	....	....	....	....	yes
Rockford	305	221	203	2	2	....	55	1-25	....	....	....	....	....	....	....
Rockland	186	166	114	2	3	....	33	1-20	0	0	0	0	yes	no	yes

TABLE XVIII.—*Continued.*

Districts.	Total Enrollment.	Average No. Belonging.	Average Daily Attendance.	No. of Men Teachers.	No. of Women Teachers.	No. of Special Teachers.	No. of Pupils to each Teacher.	Portion of Superintendent's Time given to Supervision.	No. of Pupils Studying—				Is Special Instruction given in—		
									Latin.	Greek.	German.	French.	Vocal Music?	Drawing?	Penmanship?
Rogers City	194	.....	160	3	1	....	....	nearly all	....	....	30	....	no	yes	yes
Royal Oak	115	85	.....	2	1	....	42	.....	....	....	....	....	....	....	....
St. Charles	251	131	124	1	2	....	44	.....	....	....	....	....	no	no	no
St. Clair	512	414	371	1	10	....	37	1-5	7	1	3	0	no	no	no
St. Johns	789	510	482	1	12	1	39	1-2	28	0	29	6	yes	no	no
St. Joseph	820	504	525	2	12	....	54	3-5	0	0	0	0	no	no	yes
St. Louis	543	482	436	1	10	....	....	1-2	0	0	0	0	yes	yes	yes
Saline	282	213	200	1	5	....	35	1-6	6	0	16	0	no	no	yes
Salt River	136	125	103	1	1	....	62	1-8	0	0	0	0	no	yes	yes
Sand Beach	318	200	198	1	4	....	40	1-5	0	0	0	0	no	yes	yes
Sand Lake	118	90	79	1	2	....	30	.....	....	....	....	....	no	no	yes
Saranac	258	223	191	1	3	....	57	none	0	0	0	0	no	no	no
Sault Ste. Marie	618	325	275	1	8	....	36	1-6	....	....	....	....	....	....	....
Sherwood	142	120	93	1	11	....	60	.....	....	....	....	....	no	no	yes
South Haven	515	386	324	1	6	....	55	1-16	0	0	0	0	no	no	yes
Sparta	241	217	200	1	3	....	54	.....	....	....	....	....	....	....	....
Spring Lake	616	417	368	1	9	....	41	2-3	6	0	0	0	no	no	no
Springport	151	112	110	1	2	....	37	1-2	0	0	0	0	yes	yes	yes
Stanton	494	252	313	1	9	....	35	1-5	9	0	0	0	no	no	no
Summerfield	133	120	95	1	2	....	40	.....	....	....	....	....	....	....	yes
Tawas City	256	184	172	1	3	....	46	1-20	0	0	0	0	yes	no	yes
Three Oaks	241	212	162	1	3	....	52	1-20	0	0	0	0	yes	yes	yes
Three Rivers	492	334	304	1	8	....	36	.....	5	0	4	0	no	yes	yes
Tuscola	139	80	64	1	1	....	40	.....	....	....	....	....	....	....	yes
Vassar	530	336	288	1	7	....	42	1-6	4	0	4	0	....	....	....
Vermontville	224	148	131	1	3	....	37	1-10	0	0	0	0	no	no	no
Vernon	202	166	144	1	2	....	55	.....	3	0	0	0	no	no	no
Vriesland	103	85	82	1	1	....	42	.....	0	0	0	0	yes	yes	yes
Watertown	78	67	50	1	1	....	33	.....	0	0	0	0	no	no	no
Watervliet	140	98	75	1	1	....	49	.....	0	0	0	0	....	....	yes
Wayland	362	237	179	1	4	....	47	1-3	0	0	0	0	no	no	yes
Webberville	180	160	.....	1	2	....	53	.....	0	0	0	0	no	no	yes
West Bay City	2,276	2,276	1,852	3	30	....	57	all	0	0	0	0	no	no	no
White Cloud	136	130	65	1	1	....	65	.....	....	....	....	....	....	....	....
Whitehall	483	372	344	2	6	....	46	1-5	0	0	0	0	yes	yes	yes

TABLE XVIII.—*Continued.*

Districts.	Total Enrollment.	Average No. Belonging.	Average Daily Attendance.	No. of Men Teachers.	No. of Women Teachers.	No. of Special Teachers.	No. of Pupils to each Teacher.	Portion of Superintendent's Time given to Supervision.	No. of Pupils Studying—				Is Special Instruction given in—		
									Latin.	Greek.	German.	French.	Vocal Music?	Drawing?	Penmanship?
Williamston	325	240	212	1	5	....	40	1-10	1	0	0	0	no	no	yes
Wyandotte	513	374	351	1	12	1	31	1-2	2	0	0	0	no	no	yes
Ypsilanti	931	682	628	3	18	1	31	1-2	0	0	0	0	yes	no	no
Zeeland	237	237	.....	1	3	....	58	1-8	0	0	0	0	yes	yes	yes
Zilwaukee	326	274	176	1	3	....	53	1-5	0	0	0	0	yes	no	yes

TABLE XIX.

Statistics of the High School Department of One Hundred and Sixty Graded School Districts, compiled from the Reports of Superintendents and Principals, for the School Year 1885–6.

Districts.	Enrollment in Department.	Average No. Belonging.	Average Daily Attendance.	No. of Men Teachers.	No. of Women Teachers.	Av. No. of Pupils to each Teacher.	No. of Non-Resident Pupils.	Av. Age of Class Graduated.		Cost per Capita for Instruction.	Cost per Capita for Incidentals.	Total cost per Capita.
								Years.	Months.			
Adrian	146	117	111	1 1-2	3	25	19	18	....	$28 63	$3 64	$32 27
Albion	117	997	192	1	3	33	31	17	7	16 44	4 11	20 55
Allegan	61	46	41	3-4	1 1-3	23	12	17	2	.....	.....	.....
Alma	64	48	41	1	5	48	22	17	2,5	12 50	.....	.....
Almont	44	34	31	1	.....	34	15	....	....	23 53	1 34	24 87
Alpena	57	52	49	1 1-3	1	25	.....	18	7	31 17	5 24	36 31
Ann Arbor	550	434	419	6	6	39	266	19	....	23 63	3 22	17 84
Armada	51	28	26	1	.....	28	15	19	....	20 51	1 16	21 66
Atlantic Mine	58	41	36	1	41	.....	.....	....	....	9 57	15 69	25 26
Augusta	54	42	39	1	9	39	9	....	....	.....	.....	.....
Bad Axe	62	52	37	1	.....	.....	7	....	....	.....	.....	.....
Bancroft	58	35	40	.....	.....	.....	14	12	....	.....	.....	.....
Bangor	53	48	46	.....	.....	.....	9	....	....	.....	.....	.....
Bath	54	54	36	2	.....	.....	11	16	....	7 40	.....	.....
Battle Creek	156	99	96	2 1-3	3	20	34	18	4	33 08	16 66	49 74
Belleville	65	54	50	1	1	46	31	16	9	17 07	.....	.....
Berrien Springs	46	35	40	1	1	35	1	19	....	13 00	6 29	19 29
Big Rapids	68	55	50	1	2	16	.....	18	....	.....	.....	.....
Birmingham	95	67	61	1	1	33	45	16	6	15 52	2 54	18 06
Blissfield	92	53	56	1	1	26	35	17	....	.....	.....	.....
Bloomingdale	24	18	17	1	.....	18	4	....	....	.....	.....	.....
Brighton	71	38	35	1	.....	38	15	....	....	.....	.....	.....
Buchanan	50	38	37	3-4	1	19	14	20	....	15 48	2 74	18 22
Burr Oak	37	35	.....	1	.....	35	4	....	....	.....	.....	.....
Byron	92	55	41	1	.....	55	67	18	7	12 72	1 15	10 85
Cadillac	51	35	32	1-3	2	15	4	....	....	33 71	3 51	37 22
Calumet	62	55	53	1 2 3	1-5	36	7	16	....	.....	.....	.....
Clarkston	50	32	32	1	.....	32	12	....	....	.....	.....	.....
Coldwater	114	94	92	1	3	24	.....	19	3	....	.....	.....
Capac	63	41	35	1	....	41	10	17	....	12 19	11 22	23 41

TABLE XIX.—*Continued.*

Districts.	Enrollment in Department.	Average No. Belonging.	Average Daily Attendance.	No. of Men Teachers.	No. of Women Teachers.	Av. No. of Pupils to each Teacher.	No. of Non-Resident Pupils.	Av. Age of Class Graduated. Years.	Months.	Cost per Capita for Instruction.	Cost per Capita for Incidentals.	Total cost per Capita.
Caro	78	54	50	.....	2	27	20	19	....	$27 00	$3 85	$13 94
Carson City	100	23	39	1	.....	23	5	....	....	30 40	.....	.....
Cass City	66	44	43	1	.....	44	20	....	....	.....	.....	.....
Cassopolis	55	52	45	1	1	26	11	17	2	.....	.....	.....
Cedar Springs	96	50	45	1	1	25	16	19	....	22 00	54 25	26 25
Centreville	54	41	39	1	1	20	18	17	....	.....	.....	.....
Charlotte	187	129	125	2-17	3 1-7	42	91	19	1	13 44	2 42	15 86
Cheboygan	91	61	58	1	1	30	14	15	....	22 88	2 30	25 18
Chelsea	91	49	46	1	1	24	26	18	....	.....	.....	.....
Chesaning	103	86	80	.....	.....	24	.....	....	....	.....	.....	.....
Clare	52	30	27	1	.....	30	.....	....	....	.....	.....	.....
Colon	58	37	32	1	.....	37	8	....	....	16 22	.....	.....
Concord	48	35	32	1	.....	35	8	18	....	.....	.....	.....
Constantine	151	97	89	5-7	3	24	60	12	1	16 74	1 22	17 96
Crystal Falls	15	4	4	1-3	.....	.....	.....	....	....	66 66	4 03	70 69
Dansville	56	40	36	1	1-3	.....	.....	18	....	.....	.....	.....
Detroit	839	611	579	8	15	26	20	18	6	33 41	3 78	37 19
Dexter	54	36	34	1	1	18	12	17	3	34 04	2 77	36 81
Douglas	89	47	38	.....	.....	.....	.....	....	....	.....	.....	.....
Dowagiac	79	56	54	1	2	18	23	18	....	24 10	9 36	33 46
Dundee	55	42	36	1	1	21	12	19	....	26 20	2 00	28 20
East Blissfield	62	38	35	.....	1	38	.....	18	....	17 37	.....	.....
East Saginaw	255	215	214	.....	5	43	6	14	6	24 61	4 49	29 10
Eaton Rapids	109	76	70	3-4	2	27	46	17	6	16 20	5 09	21 29
Edmore	81	41	38	1	.....	38	.....	....	....	.....	.....	.....
Elk Rapids	45	38	34	1	1	19	10	....	....	.....	.....	.....
Escanaba	40	33	29	1	1	16	1	17	....	.....	.....	.....
Evart	83	69	54	1	1	34	.....	18	....	6 81	79	7 60
Farmington	61	42	37	1	.....	42	9	17	....	.....	.....	.....
Fenton	71	52	50	2	1	19	10	18	6	27 83	.....	.....
Ferrysburg	65	45	40	.....	.....	40	.....	....	....	.....	.....	.....
Flint	308	197	192	1 1-2	5	33	57	18	....	20 15	3 85	24 00
Fowlerville	60	42	38	1	1	21	11	18	....	.....	.....	.....
Frankfort	31	20	18	1	.....	20	2	17	....	39 20	2 42	41 62
Franklin	56	49	36	1	.....	49	.....	....	....	13 17	2 60	15 77
Galesburg	55	36	35	1	.....	36	27	....	....	16 00	1 56	17 56

TABLE XIX.—*Continued.*

Districts.	Enrollment in Department.	Average No. Belonging.	Average Daily Attendance.	No. of Men Teachers.	No. of Women Teachers.	Av. No. of Pupils to each Teacher.	No. of Non-Resident Pupils.	Av. Age of Class Graduated.		Cost per Capita for Instruction.	Cost per Capita for Incidentals.	Total cost per Capita.
								Years.	Months.			
Gaylord	51	40	33	1	.....	40	10	17	....	.....	.....	.....
Grand Haven	90	68	64	1	2	30	.....	18	1	$22 14	$2 39	$25 75
Grand Rapids Tp. 1	17	13	13	1-2	1	9	2	14	....	7 00	3 33	10 00
Grass Lake	61	40	39	1	1	20	24	18	....	.....	.....	.....
Greenville	158	124	117	2	1	25	29	19	....	20 71	3 69	24 40
Hancock	39	36	34	1 3-5	1-20	22	6	17	9	44 18	.....	.....
Hanover	62	51	44	1	.....	51	30	18	....	.....	.....	.....
Hart	31	23	18	1	1	12	18	15	....	.....	.....	.....
Hastings	266	115	109	3-4	2 1-3	38	129	18	9	13 67	2 44	16 11
Holland	70	63	58	1	1	30	5	17	....	11 87	2 63	14 50
Horton	37	26	26	1	.....	26	6	17	....	18 00	1 83	19 83
Houghton	71	63	60	1	1	31	8	....	....	28 48	13 35	40 83
Howard City	46	39	38	1	.....	39	6	18	....	.....	.....	.....
Howell	81	61	55	1	1	30	80	....	....	.....	.....	.....
Hudson	98	73	73	1	2	26	11	17	....	17 10	2 70	19 80
Hudson Tp. No. 5	80	.....	70	.....	.....	.....	37	12	....	.....	.....	.....
Imlay City	19	10	18	.....	1	13	6	14	....	.....	.....	.....
Ionia	220	133	127	1	4 1-4	33	77	....	....	.....	.....	.....
Iron Mountain	62	34	30	1	1	17	.....	....	....	33 43	4 09	38 52
Jackson Dist. No. 1	272	216	209	1 1-2	5	33	34	....	....	28 19	4 17	32 36
Jonesville	70	55	52	1	1	27	26	18	....	22 72	.....	.....
Kalamazoo	151	140	136	1 1-3	4 1-20	28	16	18	10	26 34	3 15	29 49
Kalkaska	30	30	28	1	.....	.....	18	....	....	9 33	.....	.....
Laingsburg	70	42	29	1	.....	42	.....	....	....	16 66	25	16 91
Lake Linden	31	26	26	1	.....	26	.....	17	....	.....	.....	.....
Lakeview	62	32	27	1	.....	32	6	....	....	.....	.....	.....
L'Anse	48	48	30	1	.....	48	.....	....	....	.....	.....	.....
Lapeer	97	68	64	2	1	22	22	20	....	23 20	1 50	24 70
Leslie	130	118	112	2	.....	59	37	19	....	5 30	1 16	6 76
Lowell	159	82	75	1	1	41	48	17	....	17 07	2 83	19 90
Lexington	23	17	14	1 2-3	.....	14	2	15	....	.....	.....	.....
Lyons	26	22	20	1-2	.....	34	6	....	....	.....	.....	.....
Marcellus	67	48	40	1	.....	48	19	....	....	.....	.....	.....
Marine City	50	48	32	1	1	24	2	13	....	21 82	3 12	24 29
Marquette	63	54	51	6-11	1 4-11	27	3	17	4	.....	.....	.....
Mason	93	58	55	2-3	1 1-2	28	.....	18	....	14 88	.....	.....
Mendon	67	47	42	1	1-3	28	31	18	....	19 90	2 17	22 07

TABLE XIX.—*Continued.*

Districts.	Enrollment in Department.	Average No. Belonging.	Average Daily Attendance.	No. of Men Teachers.	No. of Women Teachers.	Av. No. of Pupils to each Teacher.	No. of Non-Resident Pupils.	Av. Age of Class Graduated.		Cost per Capita for Instruction.	Cost per Capita for Incidentals.	Total cost per Capita.
								Years.	Months.			
Metamora	45	34	31	1	.....	34	16	....	....	.....	.....	.....
Middleville	40	35	34	.....	.....	.....	.....	....	....	.....	.....	.....
Midland Dist. 3	70	41	38	5-6	1	20	4	19	....	$14 59	$4 75	$19 34
Milford	68	39	36	3-4	1-2	31	19	16	2	20 88	2 93	23 81
Monroe	82	69	65	4-7	2	27	10	18	....	.....	3 14	.....
Mt. Clemens	49	42	44	1	1	21	6	....	....	.....	.....	.....
Mt. Pleasant	75	51	42	1	1	26	.....	....	....	.....	.....	.....
Muir	58	35	32	1	.....	35	10	17	....	19 71	.....	.....
Napoleon	77		44	2	.....	30	38	18	....	.....	.....	.....
National Mine	59	45	25	1	.....	45	.....	....	....	.....	.....	.....
Newaygo	55	38	36	1	1-4	31	.....	9	....	.....	.....	.....
New Buffalo	35	32	27	1	.....	32	1	....	....	15 00	1 92	16 92
New Haven	80	64	54	1	.....	64	11	18	....	8 44	.....	.....
Niles	75	67	65	1	2	23	15	18	3	30 21	4 40	34 61
North Branch	28	18	16	1-2	.....	36	15	....	....	15 70	1 69	17 39
Northport	76	45	35	.....	.....	35	.....	15	....	.....	.....	.....
Northville	80	57	57	1	1	28	27	15	....	.....	.....	.....
Olivet	63	43	39	1	.....	43	5	....	....	15 12	3 10	18 22
Oscoda	39	20	20	1	.....	20	1	17	....	.....	.....	.....
Otsego	109	77	72	1	2	26	26	13	....	.....	.....	.....
Ovid	108	57	48	1	1	26	57	16	....	.....	.....	.....
Owosso	102	66	65	2	2	18	.....	17	6	.....	.....	.....
Oxford	35	28	20	1	.....	28	5	15	....	.....	.....	.....
Parma	50	48	40	1	.....	48	17	....	....	.....	.....	.....
Paw Paw	120	66	63	1	2	22	63	16	1	11 66	.....	.....
Perry	65	44	41	1	1-3	31	32	17	4	.....	.....	.....
Pontiac	145	121	118	1 1-3	3	28	34	18	6	23 36	6 01	29 37
Port Huron	90	68	.....	3	.....	22	3	18	....	.....	.....	.....
Potterville	79	40	40	1	.....	40	8	....	....	.....	.....	.....
Reed City	60	45	38	1	1	22	.....	17	....	.....	.....	.....
Rockford	66	40	36	1	.....	40	11	16	....	15 00	.....	.....
Rockland	25	21	15	1	.....	21		17	....	55 35	3 69	86 04
St Charles	71	36	35	1	.....	36	6	12	....	20 83	1 02	21 85
St. Clair	45	35	32	1	1 2-5	15	7	16	....	.....	.....	.....
St. Johns	84	73	68	1-2	2 1-11	29	27	18	6	17 45	3 85	21 30
St. Louis	70	60	55	.....	.....	40	10	18	....	15 40	2 08	17 48
Saline	45	33	32	1	1	16	13	18	....	35 23	.....	.....

TABLE XIX.—*Continued.*

Districts.	Enrollment in Department.	Average No. Belonging.	Average Daily Attendance.	No. of Men Teachers.	No. of Women Teachers.	Av. No. of Pupils to each Teacher.	No. of Non-Resident Pupils.	Av. Age of Class Graduated.		Cost per Capita for Instruction.	Cost per Capita for Incidentals.	Total cost per Capita.
								Years.	Months.			
Sand Beach	36	18	18	1	.....	18	4	....	....	$38 88	$2 86	$41 74
Sand Lake	30	20	15	1	.....	20	5	....	....	6 66	8 15	14 81
Sault St. Marie	57	37	29	3-4	1-2	30	8	....	....	12 17	4 38	16 55
Sparta	88	80	75	1	1-3	60	31	17	....	.....	.....	.....
Spring Lake	49	46	35	1	1	23	3	17	....	9 79	1 39	11 18
Springport	55	39	38	1	.....	39	25	16	....	12 54	.....	.....
Stanton	52	37	34	1	1	19	.....	17	....	37 69	2 50	40 19
Summerfield	33	30	25	1	.....	30	.....	....	....	.....	.....	.....
Tawas City	53	52	48	1	.....	52	.....	....	....	.....	.....	.....
Three Oaks	75	48	45	1	.....	48	.....	17	....	16 00	.....	16 00
Three Rivers	60	40	38	1	.....	40	18	16	....	.....	.....	.....
Vassar	62	44	42	5-6	1	40	15	19	....	.....	.....	.....
Vermontville	40	31	28	1	.....	31	18	....	....	22 00	80	22 80
Wayland	183	93	83	1	1	46	141	18	....	.....	.....	.....
West Bay City	31	31	26	1	1	15	1	....	....	17 58	3 63	21 21
Whitehall	26	20	18	1	.....	20	4	17	4	27 50	3 72	31 22
Williamston	50	42	37	1	1	21	31	....	....	.....	.....	.....
Wyandotte	39	35	34	2-3	1	35	4	17	....	34 30	2 50	36 80
Ypsilanti	98	79	76	3	2	16	16	18	....	.....	.....	.....
Zilwaukee	75	64	42	1	.....	64	2	16	....	.....	.....	.....

TABLE XX.

Statistics of the Grammar Department of One Hundred and Sixty Graded School Districts, compiled from Reports of Superintendents and Principals, for the School Year 1885–6.

Districts.	Enrollment in Department.	Average No. Belonging.	Average Daily Attendance.	No. of Men Teachers.	No. of Women Teachers.	Av. No. of Pupils to each Teacher.	No. of Non-Resident Pupils.	Av. Age of Class Promoted.		Cost per Capita for Instruction.	Cost per Capita for Incidentals.	Total cost per Capita.
								Years.	Months.			
Adrian	509	376	349	1 3-12	11	35	12	15	....	$12 44	$3 64	$16 04
Albion	277	168	156	.....	4	42	6	14	2	8 78	4 11	12 89
Allegan	260	191	180	.....	4 4-5	40	25	....	....	.....	.....	.....
Alma	114	95	85	.....	2	42	....	12	9	7 89	.....	.....
Almont	67	55	53	.....	1 1-3	44	8	....	....	7 27	1 34	8 61
Alpena	320	227	220	.....	6 1-2	36	....	14	9	12 07	5 24	17 31
Ann Arbor	584	481	461	.....	13	37	37	14	3	13 93	3 22	17 15
Armada	63	56	54	.....	1 1-2	37	36	13	6	10 71	1 17	11 88
Atlantic Mine	50	45	42	.....	1	45	....	12	....	10 94	15 69	26 63
Augusta	29	24	21	.....	2	12	2	13	7	.....	.....	.....
Bad Axe	95	70	44	.....	1	70	2	12	....	.....	.....	.....
Bancroft	63	45	45	.....	1	45	2	....	....	.....	.....	.....
Bangor Tp. No. 2 fl	111	92	86	.....	.....	....	6	....	....	.....	.....	.....
Bath	30	30	33	.....	1	30	2	....	....	6 60	97	7 53
Battle Creek	578	394	364	1-3	11	36	56	14	6	11 86	16 66	28 52
Belleville	43	35	33	.....	1	35	1	13	5	6 28	.....	.....
Berrien Springs	45	30	35	.....	1	30	1	16	....	15 00	6 29	21 29
Big Rapids	304	202	180	.....	5	40	....	14	....	.....	.....	.....
Birmingham	147	88	84	.....	2	44	21	12	9	7 27	2 54	9 81
Blissfield	57	42	44	.....	1	....	....	13	....	.....	.....	.....
Bloomingdale	72	26	50	.....	1	26	7	15	....	.....	.....	.....
Brighton	103	56	51	.....	2	28	....	....	....	.....	.....	.....
Buchanan	149	118	112	1	2	39	8	....	....	10 58	2 74	13 12
Burr Oak	39	37	.....	.....	1	37	1	....	....	.....	.....	.....
Byron	60	35	28	.....	1	35	5	13	4	8 00	1 15	9 15
Cadillac	149	99	92	1-2	2 1-2	33	2	....	....	14 26	3 51	17 77
Calumet	326	265	232	1 1-3	3 4-5	55	1	14	9	.....	.....	.....
Capac	60	45	38	.....	1	45	....	....	....	5 55	11 22	16 77
Caro	135	98	90	.....	2	49	4	14	....	9 00	3 85	12 85

TABLE XX.—*Continued.*

Districts.	Enrollment in Department.	Average No. Belonging.	Average Daily Attendance.	No. of Men Teachers.	No. of Women Teachers.	Av. No. of Pupils to each Teacher.	No. of Non-Resident Pupils.	Av. Age of Class Promoted.		Cost per Capita for Instruction.	Cost per Capita for Incidentals.	Total cost per Capita.
								Years.	Months.			
Clarkston	43	42	36	.....	1	42	....	....	....	.....	.....	.....
Coldwater	443	299	275	1	8	39	....	15	8	.....	.....	.....
Carson City	70	35	41	.....	1	35	3	13	....	$8 13	.....	.....
Cass City	87	68	69	1	1	34	2	....	....	.....	.....	.....
Cassopolis	86	83	75	.....	2	41	5	13	6	.....	.....	.....
Cedar Springs	103	69	61	.....	2	34	3	14	....	11 16	$4 25	$15 31
Centreville	72	56	49	.....	2	28	4	15	....	.....	.....	.....
Charlotte	343	239	225	6–17	6	40	41	14	9	11 27	2 42	13 69
Cheboygan	124	98	91	.....	2	49	....	12	....	7 71	2 30	10 01
Chelsea	122	89	80	.....	2	44	18	14	....	.....	.....	.....
Chesaning	80	45	41	.....	.....	....	2	....	....	.....	.....	.....
Clare	90	59	55	.....	1	59	....	....	....	.....	.....	.....
Colon	50	35	32	.....	1	35	2	....	....	9 14	.....	.....
Concord	36	31	29	.....	1	31	1	14	....	.....	.....	.....
Constantine	137	79	72	.....	2	39	2	....	....	11 96	1 22	13 18
Crystal Falls	44	35	30	2–3	1–3	35	2	....	....	19 52	4 03	23 55
Dansville	60	50	40	.....	1 1–3	34	....	13	....	.....	.....	.....
Detroit	4,300	4,095	3,695	5	108.5	39	....	14	6	17 35	3 78	21 13
Dexter	93	76	70	.....	2	38	2	14	....	8 39	2 77	11 16
Douglas	67	36	33	.....	1	36	....	....	....	.....	.....	.....
Dowagiac	171	124	118	3	.....	41	....	13	6	9 76	9 36	19 12
Dundee	176	99	74	.....	2	48	1	14	....	6 66	70	6 76
East Blissfield	46	36	31	1	.....	36	....	12	....	8 33	.....	.....
East Saginaw	1,424	1,077	1,018	9 2–3	21 1–3	39	6	11	....	13 79	4 49	18 28
Eaton Rapids	178	119	110	.....	3	39	1	14	6	8 29	5 07	13 36
Edmore	98	98	90	.....	2	49	....	....	....	.....	.....	.....
Elk Rapids	89	61	54	.....	1	61	....	....	....	.....	.....	.....
Escanaba	167	156	133	.....	4	39	2	12	....	.....	.....	.....
Evart	131	*114	96	.....	2	57	....	13	....	6 26	1 59	7 85
Farmington	60	34	25	.....	1	34	1	....	....	.....	.....	.....
Fenton	174	138	123	.....	4	34	2	14	6	11 91	.....	.....
Ferrysburg	94	63	48	.....	1 4–5	35	....	....	....	.....	.....	.....
Flint	989	486	472	1–2	13 1–2	37	16	14	2	11 48	3 85	15 33
Fowlerville	78	60	50	.....	2	30	....	15	....	.....	.....	.....
Frankfort	115	80	75	.....	2	40	2	13	....	10 03	2 42	12 45
Franklin	47	34	27	.....	1	34	....	....	....	8 78	2 60	11 38

TABLE XX.—*Continued.*

Districts.	Enrollment in Department.	Average No. Belonging.	Average Daily Attendance.	No. of Men Teachers.	No. of Women Teachers.	Av. No. of Pupils to each Teacher.	No. of Non-Resident Pupils.	Av. Age of Class Promoted.		Cost per Capita for Instruction.	Cost per Capita for Incidentals.	Total cost per Capita.
								Years.	Months.			
Galesburg	47	42	40	.....	1	42	4	14	....	$8 00	$1 56	$9 56
Gaylord	74	49	43	.....	1	....	3	13	....	.....	.....	.....
Grand Haven	432	304	284	1	5	51	....	15	6	7 34	3 60	10 94
Grand Rapids Tp. No. 1	94	74	68	1-3	1	50	....	....	....	7 00	4 23	11 23
Grass Lake	70	46	44	.....	2	23	6	14	....	.....	.....	.....
Greenville	224	170	166	.....	4	42	5	13	6	10 69	3 69	14 38
Hancock	153	118	117	1-5	3 6-20	39	2	....	....	10 72	.....	.....
Hanover	53	44	39	.....	2	22	8	15	....	.....	.....	.....
Hart	78	62	57	.....	1	....	5	10	....	.....	.....	.....
Hastings	207	155	38	.....	4	38	13	14	....	8 90	2 44	11 34
Holland City	194	164	155	.....	4	41	9	14	....	8 89	2 63	11 52
Horton	35	25	21	.....	1	25	2	12	....	10 00	1 85	11 85
Houghton	74	58	55	.....	2	29	7	....	....	22 31	12 35	34 66
Howard City	40	32	29	.....	1	32	2	14	....	.....	.....	.....
Howell	260	157	148	.....	4	39	....	....	....	.....	.....	.....
Hudson	126	111	111	1	1	55	4	13	....	8 80	2 70	11 50
Hudson, Dist. No. 5	50	40	40	.....	2	....	....	8	....	.....	.....	.....
Imlay City	132	82	71	.....	1	82	8	9	....	.....	.....	.....
Ionia	279	174	164	1 2-5	5	35	13	....	....	13 86	10 61	24 47
Iron Mountain	101	49	40	.....	1	49	....	....	....	10 26	4 09	14 35
Jackson, No. 1	681	495	462	1-2	12	40	28	....	....	13 60	4 17	17 77
Jonesville	115	42	3	.....	2	21	7	14	6	16 75	.....	.....
Kalamazoo	942	552	523	7-12	19	30	20	15	5	13 63	3 15	16 78
Kalkaska	108	76	64	.....	1	76	....	....	....	13 94	.....	.....
Laingsburg	76	52	40	.....	2	26	....	....	....	7 50	47	7 97
Lake Linden	144	98	92	1	2	49	....	13	....	.....	.....	.....
Lakeview	147	83	69	.....	2	41	....	13	....	.....	.....	.....
L'Anse	37	37	30	.....	4	....	....	....	....	.....	.....	.....
Lapeer	251	182	162	.....	4	45	23	....	....	8 00	1 50	9 50
Leslie	99	90	83	.....	2	45	....	....	....	5 30	1 16	6 46
Lowell	193	120	116	1	2	34	5	13	6	9 49	2 83	12 32
Lexington	99	95	74	1-3	1	40	2	11	....	.....	.....	.....
Lyons	29	28	26	.....	14-17	34	....	....	....	.....	.....	.....
Marcellus	63	49	38	.....	1	49	5	....	....	7 00	2 50	9 50
Marine City	103	98	66	.....	2	49	....	10	....	5 30	3 12	8 42
Marquette	461	338	332	.....	8 1-66	45	3	....	....	.....	.....	.....

TABLE XX.—*Continued.*

Districts.	Enrollment in Department.	Average No. Belonging.	Average Daily Attendance.	No. of Men Teachers.	No. of Women Teachers.	Av. No. of Pupils to each Teacher.	No. of Non-Resident Pupils.	Av. Age of Class Promoted.		Cost per Capita for Instruction.	Cost per Capita for Incidentals.	Total cost per Capita.
								Years.	Months.			
Mason	139	87	79	.....	2	43	....	15	....	.....	.....	.....
Mendon	77	60	52	.....	1 2-3	36	9	13	....	$9 68	$2 17	$11 85
Metamora	42	29	30	.....	1	29	1	....	....	.....	.....	14 11
Middleville	80	75	69	.....	.....	....	....	....	....	.....	.....	.....
Midland	220	157	140	.....	3	52	....	....	....	10 04	4 75	14 79
Milford	129	98	89	1-4	1 1-2	56	22	13	....	6 37	2 71	9 08
Monroe	200	135	130	.....	4	35	41	15	....	.....	.....	.....
Mt. Clemens	136	84	96	.....	2	42	4	....	....	.....	3 14	.....
Mt. Pleasant	162	124	112	.....	2	62	....	....	....	.....	.....	.....
Muir	66	46	42	.....	1	46	2	8	....	6 19	.....	.....
Napoleon	40	.....	28	.....	1	....	2	13	....	.....	.....	.....
National Mine	58	52	33	.....	1	52	....	....	....	.....	.....	.....
Newaygo	93	55	49	.....	1 1-4	44	....	12	....	.....	.....	.....
New Buffalo	95	43	33	.....	.....	....	....	....	....	8 18	1 92	10 10
New Haven	60	35	31	.....	1	35	....	13	....	7 20	.....	.....
Niles	211	174	169	.....	5	38	5	14	10	12 12	4 40	16 52
North Branch	56	42	38	1-2	1-2	42	1	14	....	10 63	1 69	12 32
Northport	86	48	40	.....	1	48	....	13	....	.....	.....	.....
Northville	99	55	50	.....	2	27	5	11	....	.....	.....	.....
Olivet	41	35	31	.....	1	35	2	....	....	8 23	3 10	11 33
Oscoda	119	53	53	.....	2	26	....	12	....	.....	.....	.....
Otsego	107	96	90	.....	2	48	4	10	....	.....	.....	.....
Ovid	105	89	63	.....	2	44	6	10	9	.....	.....	.....
Owosso	296	218	195	2	4	36	....	14	5	.....	.....	.....
Oxford	64	48	33	.....	2	24	2	13	....	.....	.....	.....
Parma	65	51	50	2	.....	26	30	15	....	.....	.....	.....
Paw Paw	150	115	110	.....	2 1-2	46	13	....	....	8 13	.....	.....
Perry	45	28	35	.....	1	28	3	12	8	.....	.....	.....
Pontiac	286	223	215	1 1-3	6 1-2	28	15	14	3	16 01	6 01	22 01
Port Huron	272	213	.....	.....	6	35	15	14	....	.....	.....	.....
Potterville	76	42	42	.....	1	42	....	12	....	.....	.....	.....
Reed City	130	100	88	1	2	33	....	14	....	.....	.....	.....
Rockford	68	63	60	1	.....	63	3	13	....	6 85	.....	.....
Rockland	62	55	43	1	1	27	....	12	5	20 35	3 69	24 04
St. Charles	78	44	42	.....	1	44	....	9	....	7 95	.....	.....
St. Clair	134	110	98	.....	2 4-5	39	1	13	....	.....	.....	.....

TABLE XX.—*Continued.*

Districts.	Enrollment in Department.	Average No. Belonging.	Average Daily Attendance.	No. of Men Teachers.	No. of Women Teachers.	Av. No. of Pupils to each Teacher.	No. of Non-Resident Pupils.	Av. Age of Class Promoted.		Cost per Capita for Instruction.	Cost per Capita for Incidentals.	Total cost per Capita.
								Years.	Months.			
St. Johns	220	152	145	3	3-11	50	22	....	....	$9 09	$3 85	$12 94
St. Louis	142	121	110	.....	3	37	10	15	....	8 60	2 08	10 68
Saline	100	74	69	.....	2	37	14	13	6	9 86	.....	.....
Sand Beach	98	69	68	.....	2	34	5	....	....	9 80	2 86	12 66
Sand Lake	33	30	24	.....	1	30	....	13	....	3 00	8 15	11 15
Sault Ste. Marie	110	57	50	1-9	1	52	2	15	....	11 84	4 38	16 22
Sparta	79	71	64	.....	1 1-3	51	....	13	....	.....	.....	.....
Spring Lake	267	179	159	1	4	45	2	12	9	9 79	1 39	11 18
Springport	42	30	30	.....	1	30	1	14	....	3 73	12 54	14 87
Stanton	94	75	69	.....	2	37	....	14	....	10 11	2 50	12 71
Summerfield	40	35	25	.....	1	35	....	....	....	.....	.....	.....
Tawas City	67	60	55	.....	2	27	....	....	....	.....	.....	.....
Three Oaks	100	84	70	.....	2	42	1	....	....	8 00	.....	.....
Three Rivers	157	94	80	.....	.....	39	4	....	....	.....	.....	.....
Vassar	103	79	64	1-9	3	40	2	....	....	.....	.....	.....
Vermontville	69	44	37	.....	1	44	8	15	6	12 00	70	12 70
Wayland	95	63	54	.....	1	63	20	12	....	.....	.....	.....
West Bay City	423	423	375	2	8	54	2	14	6	8 63	3 63	12 26
Whitehall	119	91	82	1	1	45	4	14	6	10 18	3 72	13 90
Williamston	105	78	71	.....	2	39	1	....	....	.....	.....	.....
Wyandotte	112	87	83	.....	3	29	....	14	....	14 30	2 50	16 80
Ypsilanti	254	193	177	.....	5	39	7	....	....	.....	.....	.....
Zilwaukee	68	58	38	.....	1	58	2	....	....	.....	.....	.....

TABLE XXI.

Statistics of the Primary Department of One Hundred and Sixty Graded School Districts, Compiled from Reports of Superintendents and Principals, for the School Year 1885–6.

Districts.	Enrollment in Department.	Average Number Belonging.	Average Daily Attendance.	Number of Men Teachers.	Number of Women Teachers.	Average No. of Pupils to each Teacher.	No. of Non-Resident Pupils.	Average Age of Class Promot'd		Cost per Capita for Instruction.	Cost per Capita for Incidentals.	Total cost per Capita.
								Years.	Months.			
Adrian	999	512	482	1-2	14	37	4	11	....	$10 31	$3 64	$13 95
Albion	512	319	309	.....	8	39	4	9	3	8 65	4 11	12 76
Allegan	410	290	274	.....	6.83	42	.....	....	....	.....	.....	.....
Alma	235	182	146	1	3	61	.....	11	3	5 44	.....	.....
Almont	158	104	96	.....	1 2-3	62	9	....	....	4 81	1 34	6 15
Alpena	1,336	662	642	.....	16 1-2	44	.....	11	6	9 39	5 24	14 63
Ann Arbor	854	669	658	.....	17	40	26	10	3	9 43	3 22	12 65
Armada	98	66	63	.....	1 1-2	44	2	10	4	9 54	1 17	10 61
Atlantic Mine	90	74	60	.....	1	74	.....	8	....	10 34	15 69	26 05
Augusta	113	95	90	.....	1	95	1	11	2	.....	.....	.....
Bad Axe	130	89	68	.....	1	89	.....	9	....	.....	.....	.....
Bancroft	65	40	50	.....	1	40	.....	....	....	.....	.....	.....
Bangor Tp. No. 2 fl	110	70	66	.....	.....	.....	1	....	....	.....	.....	.....
Bath	59	59	34	.....	1	59	.....	....	....	2 71	.....	.....
Battle Creek	1,407	848	776	1-3	21	40	6	11	....	8 01	16 66	24 67
Belleville	59	49	42	1	.....	49	1	9	....	4 05	.....	.....
Berrien Springs	63	60	43	.....	1	60	.....	9	....	7 60	6 29	13 89
Big Rapids	987	600	536	.....	14	46	.....	9	6	.....	.....	.....
Birmingham	209	125	105	.....	2	62	9	9	6	5 08	2 54	7 62
Blissfield	71	45	48	.....	1	45	.....	8	6	.....	.....	.....
Bloomingdale	74	61	50	.....	1	61	2	12	....	.....	.....	.....
Brighton	130	78	66	.....	2	38	.....	....	....	.....	.....	.....
Buchanan	296	239	213	.....	4	57	2	....	....	7 51	2 74	10 25
Burr Oak	110	106	.....	.....	3	35	1	....	....	.....	.....	.....
Byron	65	45	38	.....	1	45	2	....	....	6 22	1 15	7 37
Cadillac	663	363	331	1-2	5 1-2	60	1	....	....	7 61	3 51	11 12
Calumet	1,506	1,048	881	3 1-3	16	55	.....	11	7	.....	.....	.....
Capac	75	43	65	.....	1	43	.....	....	....	4 73	11 22	15 94
Caro	292	206	183	.....	4	51	3	10	....	7 35	3 85	11 20
Clarkston	34	30	37	.....	1	30	.....	....	....	.....	.....	.....
Coldwater	655	411	388	.....	9	45	.....	....	....	.....	.....	.....

TABLE XXI.—*Continued.*

Districts.	Enrollment in Department.	Average Number Belonging.	Average Daily Attendance.	Number of Men Teachers.	Number of Women Teachers.	Average No. of Pupils to each Teacher.	No. of Non-Resident Pupils.	Average Age of Class Promot'd		Cost per Capita for Instruction.	Cost per Capita for Incidentals.	Total cost per Capita.
								Years.	Months.			
Carson City	138	105	102	.....	2	52	.....	9	6	$4 50	.....	.....
Cass City	58	40	.....	.....	1	.....	.....	....	....	.....	.....	.....
Cassopolis	128	130	101	.....	3	43	3	9	4	.....	.....	.....
Cedar Springs	103	86	84	.....	2	.....	.....	8	....	8 95	$4 25	$13 20
Centerville	92	63	55	.....	2	31	.....	10	....	.....	.....	.....
Charlotte	675	396	374	9-17	9	44	17	10	....	10 02	2 42	12 44
Cheboygan	194	87	79	.....	2	43	1	10	....	7 26	2 30	9 56
Chelsea	216	172	162	.....	4	43	2	11	9	.....	.....	.....
Clare	139	79	75	.....	2	39	.....	....	....	.....	.....	.....
Colon	107	56	51	.....	1	56	.....	....	....	5 71	.....	.....
Concord	106	85	81	.....	2	42	1	12	6	.....	.....	.....
Constantine	188	110	101	.....	2	55	.....	....	....	9 82	1 22	11 04
Crystal Falls	124	70	61	.....	1 2-3	42	1	10	....	10 70	4 03	14 74
Dansville	60	54	42	.....	1 1-3	40	.....	9	....	.....	.....	.....
Detroit	13,953	9,828	9,279	2	196.5	51	.....	12	6	10 94	3 78	14 72
Dexter	153	131	115	.....	3	44	.....	11	....	5 57	2 77	8 34
Douglas	55	41	31	.....	1	41	.....	....	....	.....	.....	.....
Dowagiac	335	219	213	.....	5	44	.....	7	8	8 38	9 36	17 87
Dundee	201	120	118	.....	3	40	.....	9	....	6 25	50	6 75
East Bliasfield	101	63	53	1	.....	63	.....	9	....	.....	.....	.....
East Saginaw	3,136	2,206	2,091	2 2-3	45 2-3	49	1	7	....	9 79	4 49	14 28
Eaton Rapids	285	180	161	.....	4	45	.....	10	11	7 62	5 07	12 69
Edmore	151	85	75	.....	1	85	.....	....	....	.....	.....	.....
Elk Rapids	207	178	172	.....	5	36	.....	....	....	.....	.....	.....
Escanaba	189	153	114	.....	3	51	.....	8	...	.....	.....	.....
Evart	280	258	215	.....	3	82	.....	11	....	5 76	89	6 55
Farmington	31	26	20	.....	1	26	.....	9	....	.....	.....	.....
Fenton	246	172	158	.....	4	43	1	10	7	8 72	.....	.....
Ferrysburg	66	45	35	.....	5-9	63	.....	....	....	.....	.....	.....
Flint	1,451	734	684	.....	18	41	4	11	....	9 59	3 85	13 44
Fowlerville	157	141	140	.....	3	36	.....	10	....	.....	.....	.....
Frankfort	205	137	120	.....	3	46	.....	10	11	7 58	2 42	10 00
Franklin	72	53	40	.....	1	53	.....	9	....	5 62	2 60	10 22
Galesburg	85	82	78	.....	2	41	3	10	....	8 00	1 56	9 56
Gaylord	88	71	39	.....	1	71	2	9	....	.....	.....	.....
Grand Haven	1,082	666	619	.....	13	51	.....	10	10	7 88	3 61	11 44

TABLE XXI.—*Continued.*

Districts.	Enrollment in Department.	Average Number Belonging.	Average Daily Attendance.	Number of Men Teachers.	Number of Women Teachers.	Average No. of Pupils to each Teacher.	No. of Non-Resident Pupils.	Average Age of Class Promot'd.		Cost per Capita for Instruction.	Cost per Capita for Incidentals.	Total cost per Capita.
								Years.	Months.			
Grand Rapids Tp. No 1	174	142	148	.....	1	.....	.....	.....	.....	$7 00	$3 33	$10 33
Grass Lake	180	65	55	.....	2	32	.....	10	.....	.....	.....	.....
Greenville	501	326	312	.....	7	46	.....	9	6	8 89	3 69	12 58
Hancock	415	263	217	7-20	6	44	.....	.....	.....	6 11	.....	.....
Hanover	80	68	55	.....	1	.....	7	11	.....	.....	.....	.....
Hart	107	87	76	.....	1	87	3	.....	.....	.....	.....	.....
Hastings	379	256	227	.....	6	42	3	10	.....	8 14	2 44	10 58
Holland City	623	479	449	.....	8	60	4	10	8	5 91	2 68	8 54
Horton	36	30	29	.....	1	30	2	9	.....	7 00	1 85	8 85
Houghton	674	523	472	2	10	44	1	.....	.....	12 07	12 35	24 42
Howard City	135	110	102	.....	2	55	3	12	.....	.....	.....	.....
Howell	402	288	211	.....	4	58	.....	.....	.....	.....	.....	.....
Hudson	181	130	130	.....	3	40	2	9	.....	7 40	2 70	10 10
Hudson Tp. No. 5	55	.....	45	.....	.....	.....	.....	.....	.....	.....	.....	.....
Imlay City	304	149	146	.....	3	50	.....	.....	.....	.....	.....	.....
Ionia	780	459	426	3-5	12	38	9	.....	.....	.....	.....	.....
Iron Mountain	991	469	387	.....	9	50	.....	.....	.....	8 75	4 09	12 84
Jackson, Dist. 1	1,382	873	787	.....	20	44	19	.....	.....	10 36	4 17	14 53
Jonesville	155	47	.....	.....	2	27	2	11	.....	15 20	.....	.....
Kalamazoo	2,131	1,316	1,211	1-3	34	39	5	11	4	10 07	3 15	13 22
Kalkaska	106	66	47	.....	2	33	.....	.....	.....	12 12	.....	.....
Laingsburg	72	54	39	.....	1	54	.....	.....	.....	6 20	63	6 83
Lake Linden	673	323	294	.....	9	37	.....	10	.....	.....	.....	.....
Lake View	126	80	70	.....	1	80	.....	9	.....	.....	.....	.....
L'Anse	158	158	132	.....	3	48	.....	.....	.....	.....	.....	.....
Lapeer	511	314	305	.....	8	30	6	.....	.....	8 30	1 50	9 80
Leslie	148	81	79	.....	2	40	.....	.....	.....	5 30	1 16	6 46
Lowell	300	170	158	.....	4	43	.....	10	.....	7 31	2 88	10 14
Lexington	122	113	90	.....	2	57	1	9	.....	.....	.....	.....
Lyons	111	85	78	.....	1 1-4	68	.....	.....	.....	.....	.....	.....
Marcellus	71	56	49	.....	1	56	2	.....	.....	.....	.....	.....
Marine City	139	100	92	.....	2	46	.....	7	.....	5 00	3 12	8 12
Marquette	915	623	558	.....	11 1-6	56	2	.....	.....	.....	.....	.....
Mason	334	189	184	.....	5 1-2	40	.....	12	.....	.....	.....	.....
Mendon	98	76	64	.....	1 2-3	46	4	9	.....	7 69	2 17	9 86
Metamora	54	33	32	.....	1	33	4	9	2	.....	.....	.....

TABLE XXI.—*Continued.*

Districts.	Enrollment in Department.	Average Number Belonging.	Average Daily Attendance.	Number of Men Teachers.	Number of Women Teachers.	Average No. of Pupils to each Teacher.	No. of Non-Resident Pupils.	Average Age of Class Promot'd		Cost per Capita for Instruction.	Cost per Capita for Incidentals.	Total cost per Capita.
								Years.	Months.			
Middleville	90	80	73	.....	.....	.....	.....	.....	.....	.....	.....	.....
Midland	412	209	181	.....	4	52	.....	10	.....	$9 00	$4 75	$13 75
Milford	161	114	102	.....	3	38	1	10	1	6 33	3 68	10 01
Monroe	340	240	205	.....	5	48	11	10	.....	.....	.....	.....
Mt. Clemens	568	352	369	.....	7	.....	.....	.....	.....	.....	3 14	.....
Mt. Pleasant	288	175	142	.....	4	43	.....	.....	.....	.....	.....	.....
Muir	74	45	45	.....	1	45	.....	.....	.....	6 62	.....	.....
Napoleon	62	46	.....	.....	1	.....	1	9	.....	.....	.....	.....
National Mine	80	71	42	.....	1	71	.....	8	6	.....	.....	.....
Newaygo	222	150	110	.....	2 1-2	60	.....	10	.....	.....	.....	.....
New Buffalo	70	73	59	.....	.....	.....	.....	.....	.....	4 57	1 92	6 49
New Haven	40	25	22	.....	1	25	.....	8	.....	7 20	.....	.....
Niles	675	455	417	.....	13	35	1	10	6	10 58	4 40	14 98
North Branch	117	75	68	.....	1 1-2	50	2	10	.....	6 15	1 69	7 84
Northport	31	29	25	.....	1	25	.....	.....	.....	.....	.....	.....
Northville	162	108	107	.....	2	54	2	9	.....	.....	.....	.....
Olivet	60	44	37	.....	1	37	.....	.....	.....	4 91	3 10	8 01
Oscoda	351	189	189	.....	4	48	7	10	.....	.....	.....	.....
Otsego	142	95	91	.....	2	47	.....	.....	.....	.....	.....	.....
Ovid	285	242	140	.....	4	43	2	9	.....	.....	.....	.....
Owosso	700	408	412	1	8	51	.....	10	6	.....	.....	.....
Oxford	124	94	67	.....	2	47	1	8	.....	.....	.....	.....
Parma	139	129	109	.....	2	64	9	14	.....	.....	.....	.....
Paw Paw	159	124	118	.....	2 1-2	50	8	.....	.....	6 92	.....	.....
Perry	62	33	36	1	.....	33	2	8	8	.....	.....	.....
Pontiac	665	455	441	1-3	9 1-2	46	4	11	3	8 59	6 01	14 60
Port Huron	1,902	1,304	.....	.....	25	75	.....	10	.....	.....	.....	.....
Potterville	91	54	50	.....	1	54	.....	10	.....	.....	.....	.....
Reed City	270	220	195	1	3	55	.....	10	.....	.....	.....	.....
Rockford	171	118	107	.....	2	59	3	11	.....	.....	.....	.....
Rockland	99	90	58	.....	2	45	.....	8	3	9 11	3 69	12 80
St. Charles	102	51	47	.....	1	51	.....	.....	.....	6 86	.....	.....
St. Clair	343	269	241	.....	5 4-5	46	.....	.....	.....	.....	.....	.....
St. Johns	485	285	269	.....	7 7-11	41	.....	11	.....	10 07	3 85	13 92
St. Louis	331	301	271	.....	6	50	4	11	.....	7 50	2 08	9 58
Saline	137	105	99	.....	2	53	1	8	9	6 09	.....	.....

TABLE XXI.—*Continued.*

Districts.	Enrollment in Department.	Average Number Belonging.	Average Daily Attendance.	Number of Men Teachers.	Number of Women Teachers.	No. of Non-Resident Pupils.	Average No. of Pupils to each Teacher.	Average Age of Class Promot'd		Cost per Capita for Instruction.	Cost per Capita for Incidentals.	Total cost per Capita.
								Years.	Months.			
Sand Beach	184	112	112	.....	2	56	1	....	....	$4 93	$2 86	$7 79
Sand Lake	55	50	40	.....	1	50	1	10	....	3 00	8 15	11 15
Sault Ste. Marie	451	231	196	5-36	6	40	.....	12	....	6 40	4 38	10 78
Sparta	74	66	61	.....	1 1-3	43	.....	9	....	.....	.....	.....
Spring Lake	302	192	174	1	4	48	1	8	½	9 79	1 39	11 18
Springport	54	43	42	.....	1	37	.....	11	....	12 54	.....	.....
Stanton	348	230	209	.....	6	40	.....	11	....	8 05	2 50	10 56
Summerfield	60	55	45	.....	1	55	.....	....	....	.....	.....	.....
Tawas City	136	72	69	.....	1	72	.....	....	....	.....	.....	.....
Three Oaks	66	60	47	.....	1	60	.....	....	....	.....	.....	.....
Three Rivers	275	200	186	.....	6	35	.....	....	....	.....	.....	.....
Vassar	365	213	181	1-8	3	71	.....	....	....	.....	.....	.....
Vermontville	115	73	66	.....	2	48	.....	10	....	* 6 12	50	6 62
Wayland	84	81	52	.....	2	40	7	8	....	.....	.....	.....
West Bay City	1,822	1,822	1,451	.....	21	86	87	11	6	4 55	3 63	8 18
Whitehall	338	261	244	.....	5	52	.....	10	7	7 49	3 72	11 21
Williamston	170	120	102	.....	2	60	.....	....	....	.....	.....	.....
Wyandotte	262	252	234	.....	8	31	.....	10	....	10 18	2 50	12 68
Ypsilanti	579	410	375	1	11	37	.....	....	....	.....	.....	.....
Zilwaukee	183	152	94	.....	2	76	2	....	....	.....	.....	.....

TABLE XXII.

Receipts and Expenditures at Teachers' Institutes for the Calendar Year 1886.

Counties.	Locations.	Dates.	Receipts.		Disbursements.			
			County Fund.	State Fund.	Compensation of Instructors.	Expenses of Instructors.	Other Expenses.	Total.
Totals			$3,373 01	$1,758 53	$3,618 23	$2,414 15	$1,099 16	$10,131 54
Alcona	Harrisville	Aug. 23-27	$28 00	$60 00	$53 65	$29 35	$5 00	$88 00
Allegan (*a*)	Allegan	Apr. 5-9	209 83		120 00	49 69	40 14	209 83
Allegan (*b*)	Wayland	Oct. 25-29	167 90		130 00	17 00	20 90	167 90
Alpena	Alpena	Aug. 30-Sept. 3	64 00	60 00	79 83	35 30	8 87	124 00
Antrim	Bellaire	Oct. 25-29	78 00	40 00	68 00	42 00	8 00	118 00
Arenac	Sterling	Nov. 8-12	35 50	60 00	72 00	12 50	11 00	95 50
Barry	Hastings	Aug. 23-27	137 00		90 00	33 05	13 95	137 00
Bay	Bay City	Mar. 29-Apr. 2	55 50	54 00	80 00	14 15	15 35	109 50
Benzie	Frankfort	Aug. 2-6	49 00	60 00	71 10	30 00	7 90	109 00
Berrien	Niles	Aug. 16-20	159 98		90 00	54 33	15 65	159 98
Branch	Coldwater	Aug. 2-6	147 92		90 00	33 80	24 12	147 92
Calhoun (*c*)	Albion	Mar. 29-Apr. 2	159 95		120 00	11 45	28 50	159 95
Calhoun (*d*)	Marshall	Aug. 30-Sept. 3	160 53		100 00	33 70	26 83	160 53
Cass	Cassopolis	July 26-30	165 50		110 00	38 75	16 75	165 50
Charlevoix	Charlevoix	Sept. 6-10	70 50	60 00	68 68	52 69	9 13	130 50
Cheboygan	Cheboygan	Aug. 23-27	40 50	60 00	47 79	46 90	5 81	100 50
Clinton	St. Johns	Aug. 30-Sept. 3	157 98		100 00	37 08	20 85	157 98
Crawford Roscommon	Roscommon	Feb. 1-5	34 00 8 00	60 00	74 00	19 00	9 00	102 00

Eaton	Charlotte	Aug. 23-27	144 87		90 00	32 02	22 85	144 87
Emmet	Petoskey	Aug. 30-Sept. 3	68 00	60 00	79 75	38 14	10 11	128 00
Genesee	Grand Blanc	Aug. 23-27	150 35		120 00	16 10	14 25	150 35
Gladwin	Gladwin	July 26-30	18 75	60 00	50 00	18 75	10 00	78 75
Grand Traverse	Traverse City	Aug. 16-20	78 00	42 50	90 00	19 25	11 25	120 50
Gratiot	Alma	Aug. 23-27	187 03		110 00	61 83	15 20	187 03
Hillsdale	Hillsdale	Aug. 23-27	130 00		90 00	25 85	14 15	130 00
Houghton	Calumet	Aug. 23-27	79 00	60 00	75 47	57 40	14 63	147 50
Keweenaw			8 50					
Huron	Port Hope	July 26-30	85 00	56 80	80 00	35 90	15 90	141 80
Ingham	Mason	Aug. 9-13	179 45		130 00	31 05	18 40	179 45
Ionia	Ionia	Aug. 23-27	181 00		120 00	51 00	10 00	181 00
Iosco	East Tawas	Oct. 4-8	60 00	56 20	80 00	21 20	15 00	116 20
Isabella	Mt. Pleasant	Aug. 30-Sept. 3	108 00	40 00	90 00	42 50	15 50	148 00
Jackson	Springport	Aug. 23-27	150 00		90 00	26 10	33 90	150 00
Kalamazoo	Augusta	Aug. 2-6	126 90		90 00	17 90	19 00	126 90
Kalkaska	Kalkaska	Oct. 11-15	50 00	60 00	63 85	39 40	6 75	110 00
Kent (*e*)	Sparta	Mar. 22-26	128 15		90 00	14 30	23 85	128 15
Kent (*f*)	Rockford	Aug. 16-20	164 25		110 00	35 75	18 50	164 25
Lake	Chase	Nov. 8-12	56 50	60 00	72 75	38 75	5 00	116 50
Lapeer	North Branch	Aug. 23-27	153 34		90 00	40 90	22 44	153 34
Leelanaw	Leland	Aug. 16-21	45 00	60 00	56 29	41 45	7 26	105 00
Lenawee	Adrian	Aug. 23-27	184 80		130 00	33 65	21 15	184 80
Livingston	Howell	Aug. 2-6	129 85		100 00	13 50	16 35	129 85
Macomb	Romeo	Apr. 5-9	115 50	6 25	90 00	13 75	18 00	121 75
Manistee	Bear Lake	Apr. 12-16	84 50	40 00	74 61	39 05	10 84	124 50

a Institute held at Allegan, Apr. 5-9.
b " " " Wayland, Oct. 25-29.
c Institute held at Albion, Mar. 29-Apr. 2.
d " " " Marshall, Aug. 30-Sept. 3.
e Institute held at Sparta, Mar. 22-26.
f " " " Rockford, Aug. 16-20.

TABLE XXII.—*Continued.*

Counties.	Locations.	Dates.	Receipts.		Disbursements.			
			County Fund.	State Fund.	Compensation of Instructors.	Expenses of Instructors.	Other Expenses.	Total.
Marquette	Ishpeming	Aug. 30-Sept. 3	$122 69		66 80	$46 59	$9 30	$122 69
Mason	Ludington	Sept. 13-17	83 00	$60 00	90 00	37 50	15 50	143 00
Mecosta	Big Rapids	Aug. 23-27	99 00	20 00	67 95	36 25	14 80	119 00
Menominee	Iron Mountain	Aug. 23-27	50 00	60 00	54 00	50 00	6 00	110 00
Midland	Midland	Aug. 23-27	74 00	50 00	88 05	21 16	14 79	124 00
Monroe	Dundee	Aug. 16-20	150 50		90 00	47 15	13 35	150 50
Montcalm	Greenville	Aug. 9-13	167 05		110 00	37 35	19 70	167 05
Muskegon	Casnovia	Aug. 16-20	93 50	30 00	90 00	28 50	5 00	123 50
Newaygo	Newaygo	Oct. 25-29	97 00	24 60	90 00	21 30	10 30	121 60
Oakland	Birmingham	Aug. 16-20	178 90		90 00	52 40	36 50	178 90
Oceana	Hart	Aug. 23-27	110 00	14 18	90 00	23 13	11 05	124 18
Ogemaw	West Branch	Oct. 4-8	43 50	60 00	66 67	27 65	9 18	103 50
Ontonagon	Ontonagon	Aug. 30-Sept. 3	56 00	60 00	78 10	37 90		116 00
Osceola	Evart	Aug. 2-6	84 00	40 00	90 00	24 00	10 00	124 00
Otsego	Gaylord	Aug. 23-27	37 00	50 00	50 00	26 10	10 90	87 00
Ottawa	Ottawa	Apr. 5-9	143 31		90 00	39 31	14 00	143 31
Presque Isle	Rogers City	Aug. 23-27	51 00	60 00	58 89	41 25	10 86	111 00
Saginaw	Saginaw City	Aug. 16-27	292 30		225 00	37 80	29 50	292 30
St. Clair	St. Clair	Aug. 30-Sept. 3	118 80		90 00	18 35	10 45	118 80
St. Joseph	Three Rivers	Aug. 16-20	136 25		90 00	28 60	17 65	136 25
Sanilac	Croswell	Mar. 15-19	134 70		90 00	32 45	12 25	134 70
Schoolcraft	Manistique	Aug. 23-27	41 00	60 00	80 00	10 50	10 50	101 00

Shiawassee	Corunna	Aug. 23-27	145 25		90 00	39 65	15 60		145 25
Tuscola	Caro	Aug. 23-27	137 15		90 00	29 40	17 75		137 15
Van Buren	Decatur	Aug. 23-Sept. 3	299 98		225 00	50 23	24 75		299 98
Washtenaw	Ypsilanti	Aug. 16-20	176 95		135 00	19 50	22 45		176 95
Wayne	Wayne	July 26-Aug. 6	369 90		225 00	99 90	35 00		369 90
Wexford	Cadillac	Mar. 29-Apr. 2	94 00	54 00	90 00	34 00	14 00		138 00

TABLE XXIII.

Local Committees, Conductors, and Instructors at Teachers' Institutes for the Calendar Year 1886.

Counties.	Local Committees.	Conductors.	Assistant Instructors.
Alcona	C. P. Reynolds	F. S. Fitch	W. H. Honey.
Allegan (a)	W. B. Garvin	A. E. Haynes	A. Lodeman, Mrs. A. M. Garrigues.
Allegan (b)	J. W. Humphrey	J. M. Ballou	J. W. Humphrey, Metta C. Rawson, Alex. Winchell.
Alpena	E. L. Little	J. W. Simmons	F. S. Fitch.
Antrim	J. A. Harriman	H. A. Ford	Mrs. Kate B. Ford.
Arenac	Thos. Inglis	H. A. Ford	A. E. Kay, E. J. Wiley.
Barry	Chas. H. Cole	Austin George	E. M. Russell.
Bay	I. W. Morley	W. H. Payne	I. W. Morley.
Benzie	Mrs. Rose Woodward.	E. P. Church	C. T. Grawn.
Berrien	J. L. Lucas	H. King	C. W. Pickell.
Branch	H. E. King	C. F. R. Bellows	F. A. Barbour.
Calhoun (c)	C. W. Dalrymple	H. R. Pattengill	E. C. Thompson, Delos Fall, L. R. Fiske.
Calhoun (d)	S. F. Welch	H. A. Ford	L. R. Halsey, J. H. Kellogg, J. S. Estabrook, Kate B. Ford.
Cass	J. R. Boyd	R. W. Putnam	W. H. Cheever, G. A. Osinga.
Charlevoix	H. M. Enos	W. H. Payne	L. A. McLouth.
Cheboygan	W. E. Ransom	E. C. Thompson	F. O. Wickham.
Clinton	W. H. Brunson	Austin George	Livonia Parmenter, Jos. Estabrook.
Crawford, Roscommon	G. L. Alexander	H. R. Pattengill	L. W. Lankenaw.
Eaton	M. Louise Jones	E. A. Strong	J. L. Lucas.
Emmet	F. W. Howe	Chas Kelsey	W. N. Ferris.
Genesee	J. K. Perry	I. N. Demmon	Wesley Sears, O. D Thompson.
Gladwin	C. C. Fouch	N. H. Walbridge.	
G'd Traverse	C. T. Grawn	E. P. Church	H. M. Enos.
Gratiot	O. J. Stilwell	Geo. Barnes	Theo. Nelson, N. A. Richards, C. W. Pickell.
Hillsdale	W. C. Ginn	C. B. Thomas	Julia A. King.
Houghton, Keweenaw	E. T. Curtis	J. P. Vroman	Chas. Kelsey.
Huron	Geo. H. Stafford	H. C. Rankin	T. S. Clarke
Ingham	Emma Putnam	D. Howell	Theo. Nelson, H. R. Pattengill, M. Louise Jones.
Ionia	F. L. Moore	W. S. Perry	C. O. Hoyt, W. H. Merritt.

a Institute held at Allegan April 5–9.
b Institute held at Wayland October 25–29.
c Institute held at Albion March 29 to April 2.
d Institute held at Marshall August 30 to September 3.

TABLE XXIII.—*Continued.*

Counties.	Local Committees.	Conductors.	Assistant Instructors.
Iosco	S. B. Laird	H. C. Rankin	S. B. Laird.
Isabella	T. K. Jeffreys	W. D. Clizbe	C. W. Pickell.
Jackson	F. M. Harlow	Jos. Estabrook	Delos Fall.
Kalamazoo	J. W. Parkhurst	W. S. Perry	Leroy Halsey.
Kalkaska	G. R. Catton	W. H. Payne	I. N. Demmon.
Kent (*a*)	Jas. Chalmers	H. R. Pattengill	James Chalmers.
Kent (*b*)	C. R. Dockeray	A. E. Haynes	Jas. Chalmers, G. A. Ranney, C. R. Dockeray.
Lake	A. N. Demoray	H. C. Rankin	J. P. Vroman.
Lapeer	Geo. E. Bates	J. G. Plowman	J. N. McCall.
Leelanaw	Miss Jenney Possing	E. C. Thompson	J. T. Ewing.
Lenawee	A. E. Curtis	E. G. Walker	W. C. Hewitt, Mrs. A. M. Garrigues.
Livingston	Geo. Barnes	H. R. Pattingill	George Barnes, J. M. Ballou.
Macomb	O. D. Thompson	I. N. Demmon	O. D. Thompson.
Manistee	Geo. Crook	Jos. Estabrook	H. C. Rankin.
Marquette	Harlow Olcott	A. E. Haynes	H. M. Slauson.
Mason	S. N. Hill	Jos. Estabrook	C. W. Pickell.
Mecosta	S. W. Baker	H. A. Ford	F. W. Arbury.
Menominee	O. H. Chamberlain	H. C. Rankin	John Northmore.
Midland	C. M. Thompson	E. A. Wilson	C. L. Bemis.
Monroe	L. B. Smith	O. D. Thompson	W. J. Cox.
Montcalm	E. P. Church	I. N. Demmon	E. P. Church, O. D. Thompson, Theo. Nelson.
Muskegon	A. D. Chisholm	Austin George	E. L. Briggs.
Newaygo	Tyson Smith	I. N. Demmon	C. M. McLean.
Oakland	W. C. Hull	Jos. Estabrook	H. R. Pattengill, Thos. Nelson.
Oceana	F. E. Young	J. R. Miller	Stuart Mac Kibbin.
Ogemaw	F. L. Snodgrass	H. A. Ford	Mrs. Kate B. Ford.
Ontonagon	J. S. Monroe	J. P. Vroman	N. W. Haire.
Osceola	N. H. Walbridge	S. W. Baker	J. N. McCall.
Otsego	Henry Whitley	D. E. Haskins.	
Ottawa	J. W. Cupples	W. H. Payne	H. R. Pattengill.
Presque Isle	E. Erskine, Jr	J. W. Simmons	L. A. McLouth.
Saginaw	S. G. Burkhead	C. F. R. Bellows	J. Montgomery, S. G. Burkhead.
St. Clair	Josiah Smith	J. Montgomery	Julia A. King.
St. Joseph	W. H. Cheever	Wesley Sears	M. Louise Jones.
Sanilac	J. E. Lee	H. A. Ford	W. D. McQuisten, J. M. Pile.
Schoolcraft	O. B. Weed	A. E. Haynes	O. B. Weed.
Shiawassee	A. D. McIntyre	W. H. Payne	John Goodison.
Tuscola	E. J. Darbee	H. R. Pattengill	E. M. Plunkett.

a Institute held at Sparta March 22–26.
b Institute held at Rockford August 16–20.

TABLE XXIII.—*Continued.*

Counties.	Local Committees.	Conductors.	Assistant Instructors.
Van Buren	D. C. Pierce	H. King	O. E. Aleshire, C. B. Hall.
Washtenaw	R. W. Putnam	R. W. Putnam	E. M. Foote, J. M. Ballou, W. S. Perry, Mrs. A. M. Garrigues.
Wayne	Cholett Cady	D. Howell	J. W. Humphrey, J. A. Sinclair, J. M. Ballou.
Wexford	A. S. Hall	E. B. Fairfield, Jr.	C. W. Pickell.

TABLE XXIV.

Enrollment at Teachers' Institutes for the Calendar Year 1886.

Counties.	Whole No. of Teachers required to supply the Schools.	Number Enrolled.			Kinds and Grades of Certificates held by Members.						No. without experience in Teaching.	No. having received Normal Instruction.	Average Attendance each half day.
		Men.	Women.	Total.	State.	Normal.	First.	Second.	Third.	Special.			
Totals.....71	9,511	1,915	5,017	6,932	28	87	289	478	4,079	89	1,907	1,086	66.9
Alcona	28	10	11	21	.....	.....	.....	1	12	1	9	1	11.1
Allegan (*a*)	230	26	102	128	2	1	3	18	72	.....	35	28	92.5
Allegan (*b*)		55	78	133	2	1	1	15	73	2	38	8	106.
Alpena	63	9	42	51	.....	2	1	6	27	.....	14	2	39.1
Antrim	74	13	33	46	1	.....	5	1	29	.....	10	20	33.
Arenac	24	11	29	40	.....	1	5	3	18	1	12	8	29.5
Barry	168	26	66	92	.....	3	4	10	61	1	15	13	49.
Bay	151	20	110	130	.....	1	13	14	63	.....	39	2	75.
Benzie	43	17	59	76	.....	.....	1	3	41	1	34	8	66.
Berrien	219	46	133	179	.....	1	13	9	106	1	47	58	98.
Branch	171	41	111	152	.....	2	5	33	73	1	51	24	95.8
Calhoun (*c*)	246	45	145	190	.....	1	9	9	89	9	81	23	152.
Calhoun (*d*)		20	74	94	.....	.....	6	6	65	1	25	8	65.5
Cass	136	38	71	109	1	4	4	4	75	.....	29	5	74.
Charlevoix	71	6	36	42	.....	.....	1	5	27	.....	9	.....	28.
Cheboygan	54	19	39	58	.....	1	7	9	27	2	11	11	40.3
Clinton	158	46	118	164	.....	2	4	19	106	.....	37	24	114.
Crawford	42	22	33	55	1	.....	1	5	25	1	22	8	40.6
Roscommon	11												
Eaton	190	44	120	164	.....	.....	5	6	105	.....	48	25	104.8
Emmet	75	32	64	96	.....	2	7	7	49	2	20	14	52.7
Genesee	221	40	61	101	.....	.....	4	5	59	1	29	4	62.6
Gladwin	22	5	34	39	.....	.....	2	1	21	1	14	5	34.4
G'd Traverse	74	12	53	65	.....	.....	2	4	46	.....	12	18	43.5
Gratiot	148	53	97	150	.....	.....	5	5	115	1	33	8	120.4
Hillsdale	200	46	155	201	.....	.....	6	18	114	5	57	25	146.
Houghton	93	14	61	75	1	8	3	2	34	.....	30	19	51.
Keweenaw	14												

a Institute at Allegan, April 5-9.
b Institute at Wayland, October 25-29.
c Institute at Albion, March 29-April 2.
d Institute at Marshall, August 30-September 3.

TABLE XXIV.—*Continued.*

Counties.	Whole No. of Teachers required to supply the Schools.	Number Enrolled.			Kinds and Grades of Certificates held by Members.						No. without experience in Teaching.	No. having received Normal Instruction.	Average Attendance each half day.
		Men.	Women.	Total.	State.	Normal.	First.	Second.	Third.	Special.			
Huron	119	27	43	70	1	1	4	8	37	1	18	7	60.
Ingham	194	56	147	203	.....	.....	4	12	124	.....	63	25	132.
Ionia	180	35	129	164	.....	4	1	3	124	.....	32	25	101.1
Iosco	39	6	25	31	.....	2	4	2	19	2	2	9	27.
Isabella	97	30	50	80	.....	1	6	5	52	2	16	6	63.4
Jackson	241	45	88	133	.....	.....	5	4	70	1	53	7	90.
Kalamazoo	214	28	75	103	2	2	2	9	65	.....	23	17	68.4
Kalkaska	53	10	37	47	.....	.....	3	5	21	10	8	2	39.
Kent (*a*)	440	68	135	203	.....	.....	7	10	96	9	81	13	151.
Kent (*b*)	.....	43	125	168	.....	1	6	11	104	3	50	17	117.4
Lake	52	7	36	43	.....	1	4	1	35	.....	2	2	33.
Lapeer	168	23	35	68	1	2	4	2	39	.....	20	11	45.1
Leelanaw	55	6	18	24	2	1	1	.....	11	1	5	.....	16.5
Lenawee	274	34	92	126	.....	.....	.....	6	95	.....	30	11	103.
Livingston	155	43	84	127	.....	1	3	2	76	20	25	20	81.1
Macomb	146	27	51	78	.....	1	3	7	57	.....	9	5	54.5
Manistee	90	25	55	80	.....	.....	.....	3	45	1	35	3	69.2
Marquette	101	11	71	82	1	3	7	6	41	.....	30	9	74.
Mason	78	18	66	84	.....	1	17	3	31	1	29	6	61.
Mecosta	119	22	67	89	1	.....	1	7	42	1	30	7	57.8
Menominee	69	5	52	57	1	2	3	4	29	1	17	1	49.
Midland	66	10	60	70	.....	1	5	4	35	4	22	17	54.
Monroe	159	35	88	123	.....	.....	.....	14	75	.....	34	29	82.1
Montcalm	175	11	84	95	.....	.....	2	6	64	3	23	5	69.5
Muskegon	175	16	45	61	.....	.....	7	6	29	.....	19	14	41.7
Newaygo	114	23	64	87	1	1	4	5	53	8	16	13	63.7
Oakland	272	33	113	146	.....	2	6	7	77	2	51	29	92.
Oceana	98	28	45	73	1	.....	2	4	45	2	17	3	47.
Ogemaw	40	5	23	28	1	.....	1	.....	17	.....	10	4	18.6
Ontonagon	21	2	11	13	1	1	.....	2	8	.....	1	1	11.
Osceola	100	8	39	47	.....	.....	.....	4	32	1	10	.....	36.
Otsego	41	19	21	40	.....	.....	1	5	15	7	7	.....	29.6
Ottawa	182	20	59	79	.....	1	6	11	48	.....	13	5	52.
Presque Isle	30	14	.....	14	.....	.....	5	.....	2	1	6	1	6.4
Saginaw	294	44	127	171	1	.....	4	7	101	1	48	34	106.3
St. Clair	213	12	55	67	.....	1	2	7	47	.....	14	6	40.5

a Institute at Sparta March 22-26.
b Institute at Rockford, August 16-20.

TABLE XXIV—*Continued.*

Counties.	Whole No. of Teachers required to supply the Schools.	Number Enrolled.			Kinds and Grades of Certificates held by Members.						No. without experience in Teaching.	No. having received Normal Instruction.	Average Attendance each half day.
		Men.	Women.	Total.	State.	Normal.	First.	Second.	Third.	Special.			
St. Joseph	176	62	129	191	4	2	9	8	129	1	47	75	137.8
Sanilac	146	62	72	134	.....	.....	2	27	71	.....	23	44	97.3
Schoolcraft	18	15	28	43	1	.....	2	.....	8	1	30	1	20.
Shiawassee	162	39	69	108	.....	1	6	4	67	1	39	15	66.
Tuscola	162	42	87	129	.....	.....	2	11	92	1	13	20	105.2
Van Buren	198	34	116	150	1	1	8	11	99	2	28	27	63.5
Washtenaw	357	43	118	161	1	16	5	4	92	.....	48	75	104.
Wayne	522	37	77	114	.....	6	5	1	78	.....	24	32	46.
Wexford	80	16	61	77	.....	1	3	2	48	.....	24	14	65.5

TABLE XXV.

General Statistics of State and Incorporated Institutions, Compiled from the Reports of Officers, for the Academic Year 1885–'6.

Name of Institution.	Location.	Date of Organization.	Religious Denomination.	Name of Principal, President, or Superintendent.	No. of Instructors.	No. of Students (or Inmates) during the Year.	No. of Graduates at last Commencement.	Whole No. of Graduates since Founded.	No. of Volumes in Library.	No. of Volumes added to Library during Year.
State:										
University	Ann Arbor	1841	Non-sectarian	James B. Angell	86	1,401	366	8,488	60,201	3,640
Agricultural College	Lansing	1855	Non-sectarian	Edwin Willits	16	296	15	375	9,820	1,134
State Normal School	Ypsilanti	1852	Non-sectarian	D. Putnam (acting)	24	870	87	1,372	7,535	930
Michigan Mining School	Houghton*	1885	Non-sectarian	Albert Williams, Jr.	3	.....	.....	.....	400	400
Institution for Deaf and Dumb	Flint	1854	Non-sectarian	M. T. Gass	18	303	9	186	2,605	172
School for the Blind	Lansing	1879	Non-sectarian	J. F. McElroy	8	83	.....	.....	1,000	30
State Reform School	Lansing	1856	Non-sectarian	C. A. Gower	.....	652	.....	.....	2,500	400
Industrial Home for Girls	Adrian	1879	Non-sectarian	Margaret Scott	18	184	.....	.....	530	90
School for Dependent Children	Coldwater	1874	Non-sectarian	John N. Foster	6	543	.....	.....	1,600	50
Incorporated:										
Adrian College	Adrian	1859	Methodist Protestant	D. S. Stephens	11	199	11	.....	3,500	.....
Albion College	Albion	1861	Methodist Episcopal	L. R. Fiske	15	365	29	230	5,200	629
Battle Creek College	Battle Creek	1874	Seventh Day Adventist	W. W. Prescott	19	404	3	.....	1,300	100
Detroit College	Detroit	1881	Roman Catholic	John P. Frieden	11	243	.....	14	5,250	400
Detroit Home and Day School	Detroit	1882	Non-sectarian	J. D. Liggett	15	217	16	46	450	50
German American Seminary	Detroit	1861	Non-sectarian	G. Herriman	5	150	.....	.....	320	20

* First session of the school began September 15, 1886.

Hillsdale College	Hillsdale	1855	Free Baptist	Geo. F. Mosher	14	618	20	600	8,000	40
Hope College	Holland	1866	Reformed Church	Charles Scott	10	151	6	120	6,462	99
Kalamazoo College	Kalamazoo	1833	Baptist	Kendall Brooks	5	109	5	176	8,491	72
Olivet College	Olivet	1859	Congregational and Presbyterian	H. Q. Butterfield	15	365	12	207	13,325	904
Michigan Female Seminary	Kalamazoo	1856	Non-sectarian	Antoinette Bryant	7	56	2	96	1,300	.....
Michigan Military Academy	Orchard Lake	1877	Non-sectarian	J. Sumner Rogers	8	126	19	90	750	89
Raisin Valley Seminary	Adrian	1863	Society of Friends	W. W. White	3	97	8	78	400	10
Somerville School	St. Clair	1880	Non-sectarian	C. C. Wetzell	2	49	2	.....	465	20
Spring Arbor Seminary	Spring Arbor	1872	Free Methodist	A. H. Stilwell	4	140	2	30	370	30

TABLE XXVI.

Financial Statistics of State and Incorporated Educational Institutions, Compiled from the Reports of Officers, for the Academic Year 1885–'6

Institutions.	Annual Cost of Tuition per Student.	Average Cost of Board per Week.	Total Average Annual Cost per Student (to the Student).	Total Average Annual Cost per Student (to the State).	Estimated Value of Grounds, Buildings, Apparatus, etc.	Amount of Productive Funds.	Income from Productive Funds.	Amount of Legislative Appropriation for the Year 1885.	Receipts from Tuition Fees during the Year.	Receipts from all Other Sources.	Current Expenses for the Year.	Expenses for Permanent Improvements.	Liabilities.
State:													
University	$49 46	a$4 00	$209 46	$62 09	$948,000 00	$544,151 66	$29,581 00	$51,500 00	$64,076 40	$55,140 91	$173,768 52	$31,509 94	.....
Agricultural College	.....	2 35	110 00	*30 00	387,853 73	435,567 86	29,020 68	22,617 00	.....	14,635 16	43,945 75	33,478 17	.....
State Normal School	10 00	2 25	187 50	46 00	148,000 00	70,000 00	4,300 00	32,500 00	2,695 00	500 55	.....	.....	.....
Michigan Mining School	.....	.....	.....	.....	4,200 00	.....	.....	25,000 00	.....	.....	.....	.....	.....
Institution for Deaf and Dumb	.....	.....	.....	178 40	465,822 58	.....	.....	50,000 00	200 00	.....	50,000 00	21,500 50	.....
School for the Blind	.....	.....	.....	286 00	203,000 00	.....	.....	30,000 00	.....	1,056 03	29,826 28	1,800 00	.....
State Reform School	.....	.....	.....	79 75	226,887 63	.....	.....	52,000 00	.....	5,233 20	58,659 93	21,484 54	.....
Industrial Home for Girls	.....	.....	.....	173 45	.....	1,500 00	65 00	35,000 00	.....	756 45	28,070 30	3,844 30	.....
School for Dependent Children	.....	.....	.....	54 44	203,716 45	.....	.....	39,000 00	.....	100 00	34,748 76	4,305 18	.....
Incorporated:													
Adrian College	6 00	1 80	.....	.....	128,000 00	80,000 00	5,000 00	.....	.....	13,000 00	13,000 00	.....	$21,000 00
Albion College	.....	2 00	.....	.....	100,000 00	170,000 00	12,179 28	.....	.....	9,293 19	21,150 42	.....	23,000 00
Battle Creek College	30 00	a 2 25	.....	.....	70,000 00	.....	.....	.....	4,285 04	13,076 67	10,049 46	13,000 00	16,738 89
Detroit College	40 00	.....	.....	.....	80,000 00	.....	.....	.....	6,910 00	.....	3,800 00	570 00	10,000 00
Detroit Home and Day School	{40 00 / 100 00}	8 00	.....	.....	50,000 00	.....	.....	.....	b15,665 00	500 00	12,500 00	175 00	.....
German American Seminary	15 00	.....	.....	.....	.....	.....	.....	.....	.....	833 82	2,702 18	398 81	.....
Hillsdale College	.....	2 00	.....	.....	100,000 00	143,760 44	11,943 97	.....	4,243 72	332 39	13,860 07	400 00	.....

Hope College	15 00	a 2 75			45,000 00	105,075 00	6,857 00		2,056 00	5,005 00	13,398 00	1,000 00	1,000 00
Kalamazoo College	18 00	2 75			100,000 00	115,171 10	4,304 86		2,163 83	8,501 10	8,789 03		9,344 79
Olivet College	24 00 / 30 00	1 75			135,000 00	100,170 00	9,227 09		5,125 42	4,637 50	21,143 16	1,621 96	2,465 00
Michigan Female Seminary	b200 00				50,000 00	35,000 00	2,000 00		b 8,500 00		8,800 00	1,070 00	
Michigan Military Academy	b350 00				100,000 00								
Raisin Valley Seminary	22 00	1 50			10,000 00	22,000 00	1,300 00		a 2,086 45		3,200 00		
Somerville School	40 00	7 00			50,000 00				2,500 00	6,400 00	6,200 00	200 00	
Spring Arbor Seminary	17 00	2 50			10,000 00				1,194 00		1,194 00		2,700 00

a Including room rent. b Including amount received for board.

* This average is obtained as follows: The State has expended on the Agricultural College, aside from land grants, a total in appropriations of $655,513.84. For this there is a farm, buildings, and equipments inventorying at $387,857.73, which leaves of the amount appropriated, $267,660.11, chargeable to current expense or maintenance account, which would be an average per year of $8,922.00 for each of the thirty years that the college has been in operation. This, divided by the number of students in attendance during the past year, would give an average cost per student to the State of $30.14.

TABLE XXVII.

Members of County Boards of School Examiners for the Year 1886-7.

Counties.	Names.	Postoffices.	Occupations.	Terms Expire.
Alcona	C. P. Reynolds, Chairman	Harrisville	Agent	1888
	J. E. Fair, Secretary	Harrisville	County Treasurer	1889
	D. McGregor	Harrisville	Merchant	1887
Alger	F. C. Hogle, Chairman	Grand Marias	Book-keeper	1887
	E. G. Cox, Secretary	Munising	Judge of Probate	1888
	Mrs. Chas. Johnston	Rock River	House-keeper	1889
Allegan	J. W. Humphrey, Chairman	Wayland	Teacher	1888
	P. A. Latta, Secretary	Allegan	Attorney	1887
	J. F. Taylor	Douglas	Clergyman	1889
Alpena	A. R. McDonald, Chairman	Alpena	Attorney	1887
	E. L. Little, Secretary	Alpena	Clergyman	1888
	F. S. Dewey	Alpena	Merchant	1889
Antrim	W. R. Grant, Chairman	Mancelona	Teacher	1888
	G. S. Guile, Secretary	Bellaire	Attorney	1887
	Frank M. Severance	East Jordan	Farmer	1889
Arenac	J. J. Decker, Chairman	Omer	Editor	1888
	J. H. Belknap, Secretary	Omer	Merchant	1887
	A. L. Wilkins	Maple Ridge	Farmer	1889
Baraga	D. J. Norton, Chairman	L'Anse	Druggist	1888
	E. L. Mason, Secretary	L'Anse	Banker	1887
	C. S. Hebard	Pequaming	Lumberman	1889
Barry	Jerome J. England, Chairman	Woodland Centre	Farmer	1887
	Willis P. Polhemus, Secretary	Hastings	Physician	1888
	Daniel C. Warner	Dowling	Farmer	1889
Bay	F. S. Joslyn, Chairman	Pinconning	Teacher	1888
	M. R. Hartwell, Secretary	West Bay City	Teacher	1887
	Lee E. Joslyn	West Bay City	Attorney	1889
Benzie	Mrs. Rose Woodward, Chair'n	Frankfort	House-keeper	1887
	Thos. B. Pettit, Secretary	Benzonia	Teacher	1889
	D. F. Holden	Almira	Surveyor	1888
Berrien	John C. Lawrence, Chairman	Benton Harbor	Teacher	1888
	C. B. Groat, Secretary	Fairland	Teacher	1887
	H. C. Crosby	New Buffalo	Teacher	1889
Branch	J. D. W. Fisk, Chairman	Coldwater	Farmer	1887
	W. H. Lockerby, Secretary	Quincy	Lawyer	1888
	C. Clayton Johnson	Girard	Teacher	1889
Calhoun	Mrs. A. R. Camburn, Chairm'n	Albion	House-ke per	1888
	R. A. Culver, Secretary	Tekonsha	Teacher	1887
	S. G. Gorsline	Battle Creek	Farmer	1889
Cass	Chas. A. Mosher, Chairman	Cassopolis	Teacher	1888
	R. W. Hain, Secretary	Dailey	Teacher	1887
	Michael Pemberton	Cassopolis	Teacher	1889
Charlevoix	John Redpath, Chairman	Boyne Falls	Clergyman	1888
	Wm. Harris, Secretary	Norwood	Farmer	1887
	Roscoe L. Corbett	Boyne City	Attorney	1889
Cheboygan	A. W. Westgate, Chairman	Cheboygan	Merchant	1887
	Frank Shepard, Secretary	Cheboygan	Attorney	1889
	D. J. Galbraith	Cheboygan	Teacher	1888
Chippewa	E. S. B. Sutton, Chairman	Sault Ste. Marie	Attorney	1887
	G. L. Trempe, Secretary	Sault Ste. Marie	Merchant	1888
	A. Jay Murray	Sault Ste. Marie	Teacher	1889
Clare	T. W. Averill, Chairman	Harrison	County Treasurer	1887
	G. J. Cummins, Secretary	Harrison	Attorney	1888
	A. J. Doherty	Clare	Agent	1889

TABLE XXVII.—*Continued.*

Counties.	Names.	Postoffices.	Occupations.	Terms Expire.
Clinton	L. F. Conrad, Chairman	Wacousta	Farmer	1888
	W. H. Brunson, Secretary	St. Johns	Attorney	1887
	C. E. Hollister	Laingsburg	Surveyor	1888
Crawford	F. M. Richmond, Chairman	Roscommon	Farmer	1887
	C. E. Hicks, Secretary	Frederic	Teacher	1888
	Mrs. Julia Erb	Grayling	Teacher	1889
Delta	John Power, Chairman	Escanaba	Attorney	1887
	John F. Oliver, Secretary	Escanaba	Real Estate	1889
	F. D. Phillips	Fayette	Physician	1889
Eaton	J. L. Wagner, Chairman	Grand Ledge	Teacher	1887
	Chas. McKinney, Secretary	Vermontville	Teacher	1889
	Orr Schurtz	Eaton Rapids	Editor	1888
Emmet	J. T. Ewing, Chairman	Petoskey	Teacher	1887
	J. L. Morrice, Secretary	Harbor Springs	County Treasurer	1888
	M. C. Crandall	Cross Village	Farmer	1889
Genesee	Geo. F. Brown, Chairman	Duffield	Teacher	1888
	E. D. Black, Secretary	Flint	Teacher	1887
	A. E. Ransom	Flushing	Editor	1889
Gladwin	Francis Burket, Chairman	Butman	Farmer	1887
	C. C. Fouch, Secretary	Gladwin	Attorney	1888
Grand Traverse	E. B. Dennis, Chairman	Fife Lake	Teacher	1887
	C. J. Kneeland, Secretary	Traverse City	Physician	1888
	D. S. Nickerson	Kingsley	Farmer	1889
Gratiot	O. M. Everdeen, Chairman	Sumner	Teacher	1887
	G. T. Brown, Secretary	Ithaca	Attorney	1888
	O. G. Tuttle	Maple Rapids	Teacher	1889
Hillsdale	S. T. Morris, Chairman	Litchfield	Teacher	1888
	W. A. Drake, Secretary	Hillsdale	Teacher	1887
	C. R. Coryell	Jonesville	Farmer	1889
Houghton	H. M. Slauson, Chairman	Houghton	Teacher	1887
	C. J. White, Secretary	Lake Linden	Teacher	1888
	E. T. Curtis	Calumet	Teacher	1889
Huron	F. H. Stafford, Chairman	Port Hope	Merchant	1888
	M. Meddaugh, Secretary	Sebewaing	Teacher	1887
	A. J. Lynd	Bad Axe	Teacher	1889
Ingham	A. R. Hardy, Chairman	Pine Lake	Teacher	1888
	J. Calkins, Secretary	Leslie	Attorney	1887
	J. S. Huston	Williamston	Teacher	1889
Ionia	A. V. Phister, Chairman	Hubbardston	Editor	1887
	C. L. Bemis, Secretary	Portland	Teacher	1888
	J. B. Millard	Belding	Teacher	1889
Iosco	S. L. Philbrick, Chairman	Oscoda	Teacher	1887
	S. B. Laird, Secretary	East Tawas	Teacher	1888
	D. E. Guiley	East Tawas	Surveyor	1889
Iron	L. A. Fredericks, Chairman	Metropolitan	Physician	1887
	W. T. Carpenter, Secretary	Stambaugh	Physician	1889
	G. L. Woodworth	Crystal Falls	Teacher	1888
Isabella	L. C. Griffith, Chairman	Milbrook	County Clerk	1887
	S. J. Jameson, Secretary	Loomis	Teacher	1888
	T. Knox Jeffrey	Salt River	Teacher	1889
Jackson	F. M. Harlow, Chairman	Springport	Teacher	1888
	D. E. Haskins, Secretary	Concord	Teacher	1887
	E. N. Palmer	Brooklyn	Physician	1889
Kalamazoo	J. W. Parkhurst, Chairman	Augusta	Farmer	1887
	Ashley Clapp, Secretary	Vicksburg	Teacher	1889
	Alex Hadlock	Kalamazoo	Teacher	1888
Kalkaska	Warren Douglass, Chairman	Lodi	Teacher	1887
	C. C. Jencks, Secretary	Kalkaska	Attorney	1888
	G. R. Catton	Kalkaska	Teacher	1889

TABLE XXVII.—*Continued.*

Counties.	Names.	Postoffices.	Occupations.	Terms Expire.
Kent	G. A. Ranny, Chairman	Cannonsburg	Farmer	1887
	Jas. Chalmers, Secretary	Sparta	Teacher	1888
	E. A. Carpenter	Caledonia	Teacher	1889
Keweenaw	W. A. Williams, Chairman	Copper Falls	Teacher	1887
	C. A. Hanscom, Secretary	Eagle River	Teacher	1888
	J. C. Dunstan	Central Mine	Teacher	1889
Lake	F. J. West, Chairman	Baldwin	Teacher	1888
	E. G. Johnson, Secretary	Luther	Contractor	1887
	D. A. Cornell	Reed City	Farmer	1889
Lapeer	C. E. Palmerlee, Chairman	Dryden	Teacher	1887
	W. D. Clizbe, Secretary	Lapeer	Teacher	1888
	G. H. Broesamle	Imlay City	Teacher	1889
Leelanaw	Henry McManus, Chairman	Sutton's Bay	Teacher	1888
	S. J. Hutchinson, Secretary	Northport	Physician	1887
	W. H. Crowell	Maple City	Farmer	1889
Lenawee	E. G. Walker, Chairman	Palmyra	Teacher	1887
	Ira Waterman, Secretary	Hudson	Teacher	1888
	H. C. Wilson	Blissfield	Teacher	1889
Livingston	H. E. Reed, Chairman	Howell	Farmer	1888
	Thos. Gordon, Jr., Secretary	Howell	Book-keeper	1887
	M. M. Abbott	Plainfield	Farmer	1889
Mackinac	William Stacey, Chairman	St. Ignace	Teacher	1888
	James McNamara, Secretary	St. Ignace	Attorney	1887
	John R. Bailey	Mackinac	Physician	1889
Macomb	O. D. Thompson, Chairman	Romeo	Teacher	1887
	S. B. Russell, Secretary	Mt. Clemens	Attorney	1888
	A. M. Keeler	Richmond	Teacher	1889
Manistee	David Bemis, Chairman	Manistee	Agent	1887
	G. H. Kilborn, Secretary	Bear Lake	Farmer	1888
	Chas. McDiarmid	Bear Lake	Farmer	1889
Manitou	Wm. J. Gallagher, Chairman	St. James	Fisherman	1888
	M. F. O'Donnell, Secretary	St. James	Clerk	1887
	John Dunlevy	St. James	Shoemaker	1889
Marquette	John Northmore, Chairman	Republic	Teacher	1888
	Chas. Kelsey, Secretary	Marquette	Teacher	1887
	H. Olcott	Ishpeming	Teacher	1889
Mason	L. W. Rose, Chairman	Fountain	Farmer	1888
	B. S. Mills, Secretary	Ludington	Farmer	1887
	John Griffin	East Riverton	Farmer	1889
Mecosta	W. N. Ferris, Chairman	Big Rapids	Teacher	1888
	P. M. Brown, Secretary	Big Rapids	Farmer	1887
	C. E. Tuck	Mecosta	Teacher	1889
Menominee	L. J. Kimball, Chairman	Norway	Physician	1888
	J. W. Bird, Secretary	Menominee	Merchant	1887
	O. H. Chamberlain	Iron Mountain	Teacher	1889
Midland	W. V. Sanford, Chairman	Lee's Corners	Teacher	1888
	T. W. Crissey, Secretary	Midland	Editor	1887
	W. W. Allen	Midland	Farmer	1889
Missaukee	R. P. Lamb, Chairman	Manton	Teacher	1887
	Duncan McBain, Jr., Secretary	Galt	Farmer	1888
	J. T. Stitt	Stittsville	Merchant	1889
Monroe	J. W. Billmire, Chairman	Monroe	Attorney	1888
	J. R. Rogers, Secretary	Willits	Teacher	1887
	T. E. Allen	Carlton	Teacher	1889
Montcalm	D. A. McLean, Chairman	Stanton	Physician	1888
	E. P. Church, Secretary	Greenville	Teacher	1887
	S. F. Kenneday	Lakeview	Attorney	1889
Montmorency	M. M. McCormack, Chairman	Idlewild	Farmer	1888
	Wm. Briley, Secretary	Hetherton	Teacher	1887
	Tillison Babcock	Godfrey	Teacher	1889

TABLE XXVII.—*Continued.*

Counties.	Names.	Postoffices.	Occupations.	Terms Expire.
Muskegon	Frank Bracelin, Chairman	Montague	Postmaster	1887
	N. L. Downie, Secretary	North Muskegon	Teacher	1889
	J. H. Cogshall	Muskegon	Teacher	1888
Newaygo	Edwin Ware, Chairman	Fremont	Teacher	1887
	Tyson Smith, Secretary	Newaygo	Physician	1889
	W. S. Millard	Hesperia	Teacher	1888
Oakland	E. R. Webster, Chairman	Pontiac	Attorney	1887
	Fred. Wieland, Secretary	Clarkston	Teacher	1888
	C. W. Soulby	Milford	Farmer	1889
Oceana	C. N. Young, Chairman	Hesperia	Editor	1888
	F. W. Van Wickle, Secretary	Shelby	Druggist	1887
	G. C. Myers	New Era	Farmer	1889
Ogemaw	A. E. Sharpe, Chairman	West Branch	Teacher	1887
	A. L. Cumming, Secretary	Churchill	Farmer	1888
	F. L. Snodgrass	West Branch	Attorney	1889
Ontonagon	N. W. Haire, Chairman	Rockland	Teacher	1888
	J. S. Monroe, Secretary	Ironwood	Teacher	1887
	W. A. Hearne	Greenland	Teacher	1889
Osceola	A. B. Perrin, Chairman	Reed City	Teacher	1888
	B. E. Scott, Secretary	Hersey	Teacher	1887
	R. C. Hepburn	Evart	Physician	1889
Oscoda	O. W. Crawford, Chairman	Harmon	Teacher	1888
	S. H. Hagaman, Secretary	Mio	Farmer	1887
	J. A. Ward	Fairview	Farmer	1889
Otsego	F. A. Baldwin, Chairman	Gaylord	Attorney	1887
	J. M. Sanborn, Secretary	Gaylord	Surveyor	1888
	Henry Whiteley	Gaylord	Agent	1889
Ottawa	A. W. Taylor, Chairman	Nunica	Teacher	1888
	Albert Lahuis, Secretary	Zeeland	Merchant	1887
	Mrs. A. V. Weatherwax	Jenisonville	Housekeeper	1889
Presque Isle	T. E. Shaw, Chairman	Allis	Teacher	1887
	E. Erskine, Jr., Secretary	Rogers City	Teacher	1888
	Griffin Covey, Jr	Rogers City	Attorney	1889
Roscommon	J. B. Johnson, Chairman	St Helens	Book-keeper	1887
	Geo. L. Alexander, Secretary	Roscommon	Attorney	1888
	Frank Converse	Roscommon	County Clerk	1889
Saginaw	C. M. Bradt, Chairman	St. Charles	Physician	1888
	A. L. Bingham, Secretary	East Saginaw	Teacher	1887
	W. B. Cubbage	Freeland	Physician	1889
St. Clair	C. J. McCormick, Chairman	Smith's Creek	Teacher	1888
	E. M. Fisher, Secretary	Marine City	Teacher	1887
	E. F. Law	Brockway Centre	Teacher	1889
St. Joseph	Fred. Glafke, Jr., Chairman	Mendon	Teacher	1887
	Sheridan Osbon, Secretary	Sturgis	Teacher	1888
	E. A. Hoisington	Three Rivers	Teacher	1889
Sanilac	W. D. MacQuisten, Chairman	Port Sanilac	Teacher	1887
	C. L. Messer, Secretary	Marlette	Banker	1889
	Lewis Baker	Lexington	Farmer	1888
Schoolcraft	W. S. Pechin, Chairman	Manistique	Attorney	1887
	O. B. Weed, Secretary	Manistique	Teacher	1889
	W. F. Riggs	Manistique	Attorney	1888
Shiawassee	G. R. Brandt, Chairman	Byron	Teacher	1888
	D. C. Cooper, Secretary	Owosso	Farmer	1887
	E. L. Griffith	Laingsburg	Teacher	1889
Tuscola	W. H. Honey, Chairman	Caro	Teacher	1887
	J. A. Chapell, Secretary	Millington	Teacher	1888
	E. J. Darbee	Caro	Teacher	1889
Van Buren	E. F. Bradt, Chairman	Hartford	Teacher	1887
	C. C. Phillips, Secretary	Bangor	Editor	1888
	W. V. Sage	Gobleville	Teacher	1889

TABLE XXVII.—*Continued.*

Counties.	Names.	Postoffices.	Occupations.	Terms Expire.
Washtenaw	E. C. Warner, Chairman	Ypsilanti	Farmer	1888
	M. J. Lehman, Secretary	Chelsea	Attorney	1887
	G. S. Wheeler	Salem	Merchant	1889
Wayne	Cholott Cady, Chairman	Wayne	Farmer	1887
	John Gillespie, Secretary	Denton	Teacher	1888
	J. P. Reed	Rockwood	Physician	1889
Wexford	H. C. Foxworthy, Chairman	Haire	Teacher	1887
	A. J. Teed, Secretary	Cadillac	Civil Engineer	1888
	G. S. Hicks	Sherman	Clergyman	1889

DOCUMENTS

ACCOMPANYING THE

REPORT

OF THE

SUPERINTENDENT OF PUBLIC INSTRUCTION.

UNIVERSITY OF MICHIGAN.

PRESIDENT'S REPORT.

To the Honorable the Board of Regents:

I beg leave to present to you my annual report for the year ending Sept. 30, 1886.

The following changes have been made in the Faculties:

The Executive Committee took action as follows, on Dec. 8, 1885: Prof. William P. Wells having resigned, Dec. 1, the Kent Professorship of Law, the Committee appointed Otto Kirchner, of Detroit, to fill the vacancy for the remainder of the year. They also appointed Daniel A. McLachlan, M. D., Professor of Theory and Practice of Medicine in the Homœopathic Medical College, to take the place of Prof. T. P. Wilson, who was disabled by illness, and who resigned on the following day. Dec. 9. They changed the title of David P. McGuire, M. D., from Associate Professor to Professor of Ophthalmology and Otology in the Homœopathic Medical College, and the title of Clarence G. Taylor from Assistant in Mechanical Engineering to Superintendent of Shops in the Engineering Laboratory. In February the Executive Committee appointed Dewitt B. Brace, Ph. D., Assistant Professor of Physics for the second semester.

The above action of the Executive Committee was ratified by the Board at the March meeting, 1886.

During the second semester, Professor Prescott was absent on leave, and Professor Johnson was in charge of the Chemical Laboratory, and T. S. Wrampelmeier was Assistant Professor of Organic Chemistry and Pharmacy.

In June, 1886, H. S. Carhart, A. M., was appointed Professor of Physics, and Charles I. Walker, LL. D., Kent Professor of Law; Jerome C. Knowlton, A. M., was continued Assistant Professor of Law for one year; John Dewey, A. M., was promoted from the Instructorship to the Assistant Professorship of Philosophy; Walter Miller, A. M., was appointed Instructor in Greek, and Jacob E. Reighard, Ph. B., Instructor in Zoölogy.

Professor Frieze was made Acting President for the period of President Angell's absence in Europe.

July 19, Charles A. Kent's resignation of the Fletcher Professorship of Law was tendered and accepted; B. L. D'Ooge, A. M., was reäppointed Instructor in Latin; and Arthur W. Burnett, A. M., was reäppointed Instructor in English and German for one year.

August 23, Levi T. Griffin, A. M., of Detroit, was elected Fletcher Professor of Law; Charles M. Gayley being absent on leave in Europe, and B.

L. D'Ooge having resigned his place as Instructor in Latin, Andrew C. McLaughlin, A. B., was appointed in his stead. The title of Thomas M. Cooley was changed from Professor of History to Professor of American History and Constitutional Law. The resignation of T. J. Wrampelmeier, Assistant Professor of Organic Chemistry and Pharmacy, was accepted.

Many of the graduates of the Law School will hear with regret of the resignation of Professor Kent and Professor Wells. The former had held his chair continuously since 1868, and the latter had served, with a somewhat prolonged interruption by illness, since 1874. Both had devoted themselves with fidelity to the school, and by their ability and learning had left their impress upon it. But while we are called to part with these experienced teachers, we have the pleasure of welcoming back Professor Walker, who was connected with the school before either of the two Professors just named. He filled the Kent chair of Law from 1859 to 1876.

It is with special pleasure that we see Professor Olney and Professor Elisha Jones sufficiently recovered from prolonged illness to undertake their work again this year.

Professor D'Ooge is absent on leave as the Director of the American School of Archæology at Athens for the coming academic year. The appointment of him to this post is alike an honor to him and to the University, and will, as may be seen, be of real service to our institution, as well as to the cause of good learning.

The degrees conferred have been as follows:

DEGREES ON EXAMINATION.

Bachelor of Letters	5	
Bachelor of Science (Course in Biology)	2	
" " (Course in Chemistry)	3	
" " (Course in Mining Engineering)	2	
" " (Course in Mechanical Engineering)	1	
" " (Course in Civil Engineering)	10	
" " (Course in General Science)	7	
Bachelor of Philosophy	13	
Bachelor of Arts	50	
Master of Arts	4	
Doctor of Philosophy	3	
Doctor of Medicine (Department of Medicine and Surgery)	83	
Bachelor of Laws	116	
Pharmaceutical Chemist	23	
Doctor of Medicine (Homeopathic College)	17	
Doctor of Dental Surgery	29	
		368

HONORARY DEGREES.

Master of Arts	1	
Doctor of Philosophy	1	
Doctor of Laws	2	
		4
Total		372

The number of students was as follows:

DEPARTMENT OF LITERATURE, SCIENCE AND THE ARTS.

Resident Graduates	23	
Graduates Studying *in absentia*	12	
Candidates for a Degree	476	
Students not Candidates for a Degree	85	
		596

DEPARTMENT OF MEDICINE AND SURGERY.

Resident Graduates	2	
Third Year Students	83	
Second Year Students	114	
First Year Students	128	
		327

DEPARTMENT OF LAW.

Seniors	118	
Juniors	168	
		286

SCHOOL OF PHARMACY.

Resident Graduate	1	
Second Year Students	24	
First Year Students	36	
		61

HOMŒOPATHIC MEDICAL COLLEGE.

Students—Total in the College	49

COLLEGE OF DENTAL SURGERY.

Students—Total in the College	82
Total	1,401

The total attendance the previous year was 1,295. The largest part by far of the increase this year was in the Literary Department. We were gratified to see that not only was the number who entered from the preparatory schools larger than usual, but there was an unprecedented accession of students from other colleges. These last were attracted, as we think they well may be, by the variety and extent of the advanced instruction which we are able to offer them under our elective system in the last half of the college course. If the day should ever come when we could leave to the schools or smaller colleges the work now done here in the first two years of the course, and could bend our energies entirely to the work of the last two years and to professional instruction, we should rejoice. It is certain that during the year now about to begin the attendance in the Literary Department will be altogether beyond precedent, and that the total attendance in the University will closely approach that of 1881 and 1882.

The women in the University numbered 229. The previous year there were 196. Two years ago there were 180. The attendance of women this year was distributed as follows:

Department of Literature, Science and the Arts	135
Department of Medicine and Surgery	61
Department of Law	5
School of Pharmacy	2
Homœopathic Medical College	20
College of Dental Surgery	6
Total	229

There is not only an increase in numbers as compared with the two previous years, but also an increase in the proportion of women to the total attendance. In 1883–4 the women formed 13 per cent. of all the students, in 1884–5, 15 per cent., in 1885–6 a little over 16 per cent. The experience of years does not shake our confidence in the wisdom of the policy of opening our doors to the women. Every year sees more and more of the colleges and universities in this country and in Europe extending the privileges of instruction to them. We hazard little in predicting that most of those insti-

tutions which now provide separate instruction for the two sexes will at no distant day abandon so expensive and unnecessary a system.

The work of the University in all its Departments has gone on with harmony and marked efficiency. In the light of our own experience and of the warm discussions upon the elective system of studies in colleges, we are strongly impressed with the belief that the plan which we are now pursuing in our Literary Department is best adapted to the needs of the American college student. That plan prescribes about one-half of his course to each student, covering most of the work of the first year and a half or two years, and after he is thus grounded in the more fundamental studies leaves him large liberty in the choice of his studies for the last two years of his course. Our so-called university system opens to advanced students, and especially to graduates, large opportunities for specialization of study. We thus secure the elementary knowledge of various branches which every scholar should have, and at the same time open to those who are sufficiently mature and advanced to form wise judgments of their special needs, the privilege of devoting much time to the studies they may choose.

The demands upon the students in the Law Department have been made, during the past year, more exacting and rigorous than ever before, and the Faculty have decided to introduce the most important change which has been made in the method of the school since its establishment. They have graded the course, and instruction will in the main be given separately to the two classes. Text-book work and the study of leading cases will be combined with instruction by lecture. The training will, we believe, be more thorough and systematic and effective than it has ever before been.

The Homœopathic Medical College has in large degree escaped the unpleasant embarrassments from which it has often suffered by reason of the unfriendly attitude of certain homœopathic physicians in the State, and has had a quiet and successful year. The result is visible in the larger class which is presenting itself now. Its prospects have not been so bright in many years.

The Department of Medicine and Surgery and the School of Pharmacy have carried on their work with their usual vigor. Some of the wants of the Medical Department will be referred to later in this Report.

By the prudent and judicious use of the fund for repairs given us by the last Legislature the Steward has carried on the work begun last year so that our buildings are now in better condition than they have been for many years. Perhaps the most important improvements completed this year have been in the Law building. The reconstruction of the Law Library room will attract particular attention. The better lighting gained by the opening of new windows, the hard wood flooring, the re-arrangement of the books in new cases easily accessible, adapt the room admirably to its purposes. The Museum building has been thoroughly examined and the defects in its original construction have been remedied as far as possible. A good deal of work has been done at the Observatory. The improvements which the Steward has with the limited means at his command been able to make in our grounds, you will observe with pleasure.

Cases have been made for the Chinese exhibit, and the articles have been tastefully arranged in them. The whole of one room in the Museum is assigned to them, and the value of this handsome gift of the Chinese Government can now be appreciated.

About one-half of the Rogers collection of statuary has been received and placed in our Art Gallery. This part of the collection numbers fifty-three statues and groups, including many of the finest works of the eminent sculptor. It is perhaps not so generally understood as it should be that these casts, being the literal transcripts of the clay as it left the artist's hand, are more valuable for purposes of instruction in art than copies wrought in marble, because they reproduce more exactly the artist's work. One has only to compare the cast of Nydia with our marble statue of Nydia to perceive this. When we consider the variety and beauty of the work in this Rogers collection, we may say with safety that no collection of statuary comparable with it is to be found in the gallery of any other of our Universities.

From the reports of the Curators of the Museum, I draw the following facts. Two important additions have been made to the Botanical Collection; first, a set of North American Fungi, the gift of Joseph B. Whittier, of East Saginaw, and second, a collection of North American Woods, presented by Prof. C. F. Sargent, of the Arnold Arboretum of Harvard University. The fungi are mounted ready for use by the students. Assistance is needed to care for the botanical collections.

A considerable number of desirable specimens has been added by gift to the collections in applied chemistry, especially to the pharmaceutial collections.

Director Otto J. Klotz, Astronomer of the Dominion of Canada, and a graduate of our Literary Department in 1872, has presented to our palæontological museum a highly interesting collection of fossils from the flanks of the Rocky Mountains in latitude 57°. They are said by the Curator to represent the primordial zone of life. The locality is hitherto unknown to science, and the species sent appear to be new.

It will be remembered that most of Dr. Roeminger's unique collection of fossils is deposited on our shelves. It is so very desirable that we should secure it, that I cannot but call attention to the danger of our losing it, unless we can soon find the means of purchasing it.

Our Museum of Art has received not only the statuary above referred to, but also two additions to our collection of portraits, one of President Tappan, presented by C. H. Dennison, Esq., of the class of 1861, and the other of Professor Ford, by the last graduating class of the Department of Medicine and Surgery. We very much desire to make large additions to our collection of the portraits of men who have been benefactors of the University, either by important gifts or by eminent service as teachers in its Faculties. It would also be fitting that in the halls of the State University the portraits of the Governors of the State should be placed.

The other Museums have received no important additions, as the condition of our treasury has been such that we not been able to avail ourselves even of favorable opportunities to increase our scientific collections by purchase.

The report of the Librarian shows that we have now in all our libraries 60,201 volumes, 12,267 unbound pamphlets and 212 charts. Of these there are in the General Library 47,185 volumes, 11,404 unbound pamphlets and 212 charts; in the Law Library, 9,250 volumes; in the Medical Library, 3,360 volumes, 872 unbound pamphlets, and in the Library of the Dental College 404 volumes, The increase in all the libraries has been 3,640 volumes and 1,087 pamphlets. The number of volumes drawn by readers for use in the reading-room and by professors for use out of the building has been 82,063.

Among the gifts to the library we may name the great Piranesi collection of engravings, 27 volumes, containing 1,577 engravings, presented through Dr. Frieze by a recent graduate who prefers that his name should not be known; a collection of English Dramatic works, 240 volumes, presented through Prof. Demmon by a recent graduate, who makes the same modest request as the giver of the engravings concerning the disclosure of his name; the addition by James McMillan, Esq., to the McMillan Shakespearean collection of 298 volumes and 111 pamphlets of great value, purchased from the Crosby Shakespeare Library, of Zanesville, O., and a number of valuable works added by Philo Parsons, Esq., to the Parsons Library.

It is with special pleasure that I make mention of the generous interest manifested in our Library by some of our German fellow citizens. Having learned of the inadequacy of our means to provide the needed supply of German literature, they have established the so-called "Goethe Library Fund," the proceeds of which are to be devoted to the purchase of German books for our Library. The sum of $1,360 has already been raised, and it is confidently expected that handsome additions will be made to the fund. A thousand dollars' worth of books has already been ordered on the account of this fund.

Now, as always, our prosperity brings with it the call for larger equipment. It is obvious that we should have a new building, especially constructed for galleries of art. To display properly the Rogers collection of statuary and the Lewis collection of pictures we need much larger accommodations than are afforded by our present galleries in the Library building. We cannot doubt that in due time the State will cheerfully furnish a suitable house for these valuable gifts which have been so generously bestowed upon it by two of its citizens. The Art Building should have architectural fitness for the high purpose to which it is to be dedicated.

We are also in pressing need of certain scientific laboratories. We should have without delay a physical laboratory for instruction in the wide domain of theoretical and applied physics. Our outfit for teaching this branch should be materially enlarged. In no department of college work has greater change been made in our better colleges and scientific schools during the last few years. The demand for high training in physics with special reference to practical application, as for example in electrical engineering, is very considerable. A building must be constructed with special regard to the work in physics. We wish to give to our Professor in charge of that important department of study, who is a teacher and investigator of large experience and established reputation, the material for securing the greatest efficiency to his department.

The Faculty of the Department of Medicine and Surgery also make an urgent request for a laboratory for pathological, physiological and histological work. The best medical schools are coming to give instruction as largely as possible by laboratory methods, and there can be no question that these methods present great advantages for imparting instruction in certain branches. At an early day our medical school won distinction through its laboratory facilities for the study of chemistry, when few medical schools offered such advantages. We must see that we are not now outstripped by other schools in furnishing opportunity for laboratory work in such other branches as can be best taught in part at least by the aid of laboratories.

The State Board of Health has also forwarded a request to you to establish a hygienic laboratory, in which investigations could be made of the adulterations

of food and of all such sanitary problems as it is well to have studied for the protection of health. There can be no doubt that the State would receive from such a laboratory, properly organized and conducted, more than it would cost to establish and maintain it. In Germany such laboratories are maintained by the government, and the city of Paris has one which is found to be of the greatest service to the public.

Probably the medical and hygienic laboratories could all be provided for under one roof. It is possible that a physical laboratory could be placed in a separate wing, and some economy in expenditure thus be secured. I commend the whole subject to your most careful consideration.

As we expected, the new Engineering Laboratory is completely filled at once on its being opened. The question of enlargement will force itself on us at an early day. The equipment should be increased without delay. There is a strong and growing tendency among young men to prepare themselves for the various fields of engineering work and for the practical application of the sciences to the arts of life. To all such some part of our shop work is helpful, if not absolutely essential. We have now about 120 students of engineering in the University, and the number is steadily increasing year by year. Our present Engineering Laboratory can accommodate only 45, and so many only by undue crowding. We need more room, and we need for those who can be accommodated more tools and machinery, especially a new steam engine, and more assistants. The implements for an experimental laboratory for testing machines, steam engines, the strength of materials, etc., are much desired. As elsewhere stated, we should aim at the earliest opportunity to add to our other engineering work instruction in electrical engineering.

The growth of the Dental College calls for an enlargement of the building they occupy. That growth has been healthy and promising. It has taken place in the face of a constant and rapid increase of the requirements for admission and especially for graduation. When it was organized in 1875 a two years' course of six months in each year secured a degree. Now a student must study dentistry three years and pursue in that time two courses of nine months each in order to graduate, and the standard of examinations has been raised. The success of the graduates, the eagerness with which, in many cases, they are invited to settle in important towns, and the recognition of their diplomas in Europe, attest the excellence of the instruction. The school has, beyond doubt, rendered a most valuable public service by sending forth well-trained men and women to the important work entrusted to the dental profession. Every year it attracts students from beyond the seas It is to be hoped that means may be found to give the school the ampler accommodations which the present number of students require. Without such enlargement it will be necessary to refuse admission to many applicants.

We need at once to settle upon some carefully considered plan concerning building upon the campus. It is greatly to be regretted that when land in the vicinity of the University was cheap, the Regents had not procured at least a hundred acres. But no one could in the early days foresee the needs which we now experience. Our forty acres seemed a liberal supply. But already we are finding ourselves crowded, while yet at no distant time, and we hope very soon, we shall be called to find sites for the art gallery, the gymnasium, and several laboratories. If we could at once remove the dissecting rooms and the hospitals from the campus to some eligible site, not far away, I should deem it very wise to make the removal. It would be well if we had a large field for

the sports of the students. More room than we have is now desired by them for ball grounds and tennis courts, and we can of course never have fine lawns on ground which is used for either ball or tennis. The expediency of acquiring more land before the growth of the city carries the price still higher than it now is seems to me well worthy of consideration.

The report of the Finance Committee will doubtless show that the aid furnished to our repair and contingent fund was of very essential service. It is very desirable that such aid be again furnished, since it is far more economical to keep our buildings in repair than to allow them to get into so bad a condition as they were in two years ago. A smaller sum will suffice for the next two years than we asked before. By the closest economy and by heroically refusing our various departments many things which they greatly needed, and by pinching salaries, we have somewhat improved the condition of our treasury. The new appraisal of the property of the State so increases the valuation that the one-twentieth mill tax will yield about $6,700 more than heretofore. We may count on enlarged income from students' fees for the year 1886–7. Still our needs are so many and so pressing that we must rely on the constant aid of the State. For many years now that aid has been so cheerfully furnished that we do not allow ourselves to doubt that it will be continued. The simple truth is that the State now holds property here representing a greater value than all the money it has raised for the support of the University. The service which the University has rendered to the State by the education of its sons and daughters has been a clear gain to the State. We believe that the slight burden, which we ask her to take upon herself in securing a larger usefulness to the Institution and so a larger blessing to her own children, will be cheerfully borne by her in the future as it has been in the past.

JAMES B. ANGELL,
President.

APPENDIX A.

REPORT OF FINANCE COMMITTEE.

To the Board of Regents:

The finance committee herewith present the treasurer's statement of receipts and disbursements for the fiscal year ending September 30, 1886, also their estimate of receipts and expenditures for the year ending September 30, 1887.

Your committee have caused the books and vouchers of the treasurer to be examined and compared with the accounts of the secretary, and have found satisfactory evidence of the correctness of the treasurer's report, although a few vouchers are incomplete, and not in the usual form. The sums involved are small, being remittances for purchases made in Europe. The proper vouchers, when received, will be placed on file. It will be seen by the treasurer's report that there is a larger balance in the treasury than was estimated a year ago. This has arisen, in part, from increased receipts from students' fees and miscellaneous sources, and in part from a reduction in current

expenses. The principal reductions have been made in the estimates for repairs and contingent expenses, for fuel and lights, and for chemical laboratory supplies, some of the repairs contemplated having necessarily been postponed until another year, and the exceptionally mild winter of 1885-86 having effected an unexpected saving of fuel.

This apparent gain will be affected in part by an outstanding indebtedness of about five thousand dollars, as follows: Two thousand dollars for bills already audited and payable on demand, and about three thousand dollars for fuel and laboratory supplies purchased and received, or in transit, for which bills have not been audited.

The slight improvement in the condition of the finances has been accomplished only by the exercise of the most rigid economy, and the Auditing Board should be heartily commended for their watchful care in avoiding all unnecessary expenditures, and for enforcing all economies inaugurated by the Board.

In the judgment of your committee, economy must be continued, and appropriations from the Legislature must be secured to provide for any increase of salaries or of teaching force, as well as for all new buildings, or other permanent improvements that may be needed.

In the estimate of receipts for the ensuing year, the committee have assumed that the next Legislature will provide at least the same amount as in former years for the support of the Homœopathic Medical College, the hospitals, the College of Dental Surgery, and for assistance in the Engineering Laboratory.

The estimate of expenditures includes the usual items. The sums standing to the credit of the Engineering Laboratory and of the Libraries are unexpended balances of the appropriations for those purposes. For anything in excess of these sums, we must depend upon the Legislature.

The estimate of five thousand dollars for the Rogers collection is based on what was expended for transportation and placing in its present position the portion already received. The expense attendant upon the acceptance of Mr. Rogers' munificent gift, and of the New Orleans Chinese collection presented by the Chinese Government, it is anticipated, will be reimbursed by the Legislature.

Respectfully submitted,

E. O. GROSVENOR, *Chairman.*
MOSES W. FIELD,
C. J. WILLETT.

ESTIMATE OF RECEIPTS FOR THE YEAR ENDING SEPTEMBER 30, 1887.

Balance in Treasury October 1, 1886	$17,173 71
To be received for University interest	38,000 00
" " from State 1-20 mill tax	43,875 00
" " " State Homœopathic Department	6,000 00
" " " Students' fees and laboratory deposits	63,000 00
" " " Sale of dental supplies	3,000 00
" " " Sale of anatomical material	400 00
" " " Sale of medicine at University Hospital	500 00
" " " Sale of medicine at Homœopathic Hospital	200 00
" " " Matron University Hospital	700 00
" " " Interest on bank deposits	500 00

APPROPRIATIONS EXPECTED FROM THE LEGISLATURE.

For University Hospital	$5,000 00	
College of Dental Surgery	8,000 00	
Homœopathic Medical College	6,200 00	
Assistant Engineering Laboratory	1,000 00	
		20,200 00
		$193,548 71

ESTIMATE OF EXPENSES.

For Salaries of professors, officers and employés	$139,000 00
Alterations and repairs	5,000 00
Fuel and lights	10,000 00
Current expenses of General Library	300 00
" " Medical "	50 00
" " Law "	50 00
Grounds	500 00
Postage	500 00
Insurance	1,700 00
Calendar, Regents' proceedings and miscellaneous printing	2,000 00
Current expenses of Museum	300 00
Supplies for Chemical Laboratory	5,000 00
" Botanical "	100 00
" Histological "	200 00
" Physiological "	200 00
" Engineering "	400 00
" Microscopical "	200 00
" Physical "	400 00
" General Chemistry	500 00
" Zoölogical Laboratory	100 00
Current expenses in the Engineering Department	400 00
" " " Astronomical Observatory	300 00
Anatomical material	2,500 00
Advertising Literary Department	300 00
" Medical "	200 00
" Law "	200 00
" Pharmacy "	200 00
Purchase of books for General Library (balance of appropriation)	3,303 27
Engineering Laboratory (balance of appropriation)	771 69
Transportation of the Rogers Collection	3,500 00
Current expenses of University Hospital	5,000 00
" " Homœopathic Department	4,000 00
" " Dental College	2,500 00
Lease of water privilege	75 00
Purchase and filling of diplomas	650 00
Commencement exercises	1,200 00
Taxes on lots in Springwells	100 00
Semi-centennial celebration	1,000 00
Balance on hand September 30, 1887	848 75
	$198,548 71

The University having advanced the sum of $3,769.96 for transporting and placing the *Rogers* and *Chinese* Collections, the State will be asked to reimburse us in that amount. If this is done, the balance on hand September 30, 1887, will be increased by that amount.

TREASURER'S REPORT.

To the Finance Committee, Board of Regents, University of Michigan:

GENTLEMEN—Herewith I submit a statement of the receipts and disbursements of this office for and during the fiscal year ending with September 30, 1886.

Respectfully,

H. SOULE, *Treasurer.*

RECEIPTS.

Balance in Treasury October 1, 1885	$22,153 86	
From State Treasurer, 1-20 mill tax	30,375 00	
" " " University interest	29,581 00	
" " " Repairs and contingent	16,000 00	
" " " Books for libraries	5,000 00	
" " " Homœopathic College and Hospital	12,400 00	
" " " University Hospital	5,000 00	
" " " Dental College	8,000 00	
" " " Assistant in Engineering Laboratory	1,000 00	
" " " Increase of salaries, Law Department	2,800 00	
" " " Engineering Laboratory	10,000 00	
" " " Homœopathic College, law of 1875	6,000 00	
" " " Removal of the gifts of Mr. Rogers	2,500 00	
" University Hospital, sale of material	1,028 37	
" Homœopathic " " "	216 05	
" Dental College, " "	3,490 99	
" Anatomical material sold	461 60	
" Interest on deposits	994 08	
" Miscellaneous	1,374 82	
" Students' fees	64,076 40	
		$222,452 17

DISBURSEMENTS.

Salaries of officers, professors and employés	$134,481 00	
Vouchers for Current expenses	25,474 37	
" " General Library	6,558 49	
" " Repairs and contingent	11,021 48	
" " Physical Laboratory	91 42	
" " Physiological "	16 93	
" " Engineering "	14,032 93	
" " University Hospital	2,607 86	
" " Homœopathic College	610 30	
" " Homœopathic College and Hospital	2,576 65	
" " Dental College	1,330 02	
" " Removal of the gifts of Mr. Rogers	4,477 01	
" " Clock for Univers'ty	2,000 00	
		$305,278 46
Balance in Treasury September 30, 1886		17,173 71
		$222,462 17

CLASSIFICATION.

RECEIPTS TO THE GENERAL FUND.

From State Treasurer, account 1-20 mill tax	$30,375 00	
" " " " Interest	29,581 00	
		$59,956 00
" First National Bank of Ann Arbor, interest	$994 08	
" University Hospital, sale of material	1,028 37	
" Homœopathic " " "	216 05	
" Dental College, " "	3,490 99	
" Anatomical materials sold to medical schools	461 60	
" Miscellaneous sources	1,374 82	
		7,565 91
" Students' Fees, account Medicine and Surgery	$12,475 00	
" " " " Literary	13,585 00	
" " " " Law	13,085 00	
" " " " Dental College	3,910 00	

From Students' Fees, account Mechanical	$212 00	
" " " " Physiology	36 00	
" " " " Pharmacy	1,985 00	
" " " " Homœopathic College	2,365 00	
" " " " General Chemistry	246 00	
" " " " Practical Anatomy	3,540 00	
" " " " Microscopical	267 00	
" " " " Histological	640 00	
" " " " A. and A. Chemistry	7,950 40	
" " " " Diplomas	3,750 00	
" " " " Zoölogy	30 00	
		$64,076 40
Total fees	$64,076 40	
Less returned fees	2,347 73	
Net	$61,728 67	
		$131,598 31
Balance overdrawn September 30, 1886		9,568 57
		$141,166 88

DISBURSEMENTS FROM THE GENERAL FUND.

Balance overdrawn October 1, 1885	$1,941 51	
General pay-roll	113,751 00	
Contingent	184 50	
Fuel and lights	6,781 21	
General library	181 85	
Medical library	39 85	
Grounds	62 52	
Postage	199 05	
Insurance	727 25	
Advertising and printing	606 46	
Museum	204 04	
Chemical Laboratory	4,133 88	
Botanical Laboratory	145	
Histological Laboratory	378 64	
Engineering Laboratory	565 37	
Microscopical Laboratory	124 77	
General chemistry	332 18	
Civil engineering	187 96	
Astronomical Observatory	27 67	
Anatomical	2,147 54	
Physics	455 46	
Physiology	92 19	
Dental material	2,200 81	
Advertising, medical	261 86	
" law	241 39	
" pharmacy	125 90	
Zoölogical	344 67	
Calendar	914 61	
Chinese exhibit	1,460 01	
Students' fees refunded	2,347 73	
		$141,166 88

SPECIAL FUNDS.

HOMŒOPATHIC COLLEGE.

Receipts.

Balance in treasury, October 1, 1885	$357 80	
From State Treasurer	6,000 00	
		$6,357 80

Disbursements.

Salaries of professors and employés	$247 50	
Vouchers for current expenses	610 30	
Balance in Treasury, September 60, 1886	6,000 00	
		$6,857 80

HOMŒOPATHIC COLLEGE AND HOSPITAL.

Receipts.

From State Treasurer		$12,400 00

Disbursements.

Balance Homœpathic Hospital, overdrawn, October 1, 1885	$462 48	
Salaries of professors and employés	7,982 50	
Vouchers for current expenses	2,576 65	
Balance in Treasury, September 30, 1886	1,378 37	
		$12,400 00

UNIVERSITY HOSPITAL.

Receipts.

Balance in Treasury, October 1, 1885	$2,270 51	
From State Treasury	5,000 00	
		$7,270 51

Disbursements.

Salaries of surgeon and employés	$1,850 00	
Vouchers for current expenses	2,607 86	
Balance in Treasury, September 30, 1886	2,812 65	
		$7,270 51

REPAIRS AND CONTINGENT.

Receipts.

Balance in Treasury, October 1, 1885	$5,395 43	
From State Treasury	16,000 00	
		$21,395 43

Disbursements.

Vouchers for current expenses	$11,021 48	
Balance in Treasury, September 30, 1886	10,373 95	
		$21,395 43

GENERAL LIBRARY.

Receipts.

Balance in Treasury, October 1, 1885	$4,861 76	
From State Treasury	5,000 00	
		$9,861 76

Disbursements.

Vouchers for current expenses	$6,558 49	
Balance in Treasury, September 30, 1886	3,303 27	
		$9,861 76

PHYSIOLOGICAL LABORATORY.

Receipts.

Balance in Treasury, October 1, 1886	$211 36	$211 36

Disbursements.

Vouchers for current expenses	$16 93	
Balance in Treasury, September 30, 1886	194 43	
		$211 36

PHYSICAL LABORATORY.

Receipts.

Balance in Treasury, October 1, 1885	$91 42	$91 42

Disbursements.

Vouchers for current expenses	$91 42	$91 42

DENTAL COLLEGE.

Receipts.

Balance in Treasury, October 1, 1885	$4,064 95	
From State Treasurer	8,000 00	
		$12,064 95

Disbursements.

Salaries of professors and employés	$6,850 00	
Vouchers for current expenses	1,330 02	
Balance in Treasury, September 30, 1886	3,884 93	
		$12,064 95

ENGINEERING LABORATORY.

Receipts.

Balance in Treasury, October 1, 1885	$4,804 62	
From State Treasurer	10,000 00	
		$14,804 62

Disbursements.

Vouchers for expenses	$14,032 93	
Balance in Treasury, September 30, 1886	771 69	
		$14,804 62

ASSISTANT IN ENGINEERING LABORATORY.

Receipts.

From State Treasurer	$1,000 00	$1,000 00

Disbursements.

Salary of assistant	$1,000 00	$1,000 00

INCREASE OF SALARIES OF LAW PROFESSORS.

Receipts.

From State Treasurer	$2,800 00	$2,800 00

Disbursements.

Salaries of professors	$2,800 00	$2,800 00

UNIVERSITY CLOCK.

Receipts.

Balance in Treasury, October 1, 1885	$2,000 00	$2,000 00

Disbursements.

Vouchers for expenses	$2,000 00	$2,000 00

REMOVAL OF THE GIFTS OF MR. ROGERS.

Receipts.

From State Treasurer	$2,500 00	
Balance overdrawn September 30, 1886	1,977 01	
		$4,477 01

Disbursements.

Vouchers for current expenses	$4,477 01	$4,477 01

STATEMENT OF SPECIAL FUNDS.

Balances in Treasury, September 30, 1886.

Homœopathic College	$6,000 00	
Homœopathic College and Hospital	1,378 37	
University Hospital	2,812 65	
Repairs and Contingent	10,373 95	
General Library	3,308 27	
Physiological Laboratory	194 43	
Dental College	3,884 93	
Engineering Laboratory	771 69	
		$28,719 29
Less removal of the gifts of Mr. Rogers, overdrawn		1,977 01
		$26,742 28
General Fund Account, overdrawn		9,568 57
Balance in Treasury, September 30, 1886		$17,173 71

STATE BOARD OF EDUCATION.

ANNUAL REPORT.

HON. THEODORE NELSON,
Superintendent of Public Instruction:

SIR—In accordance with the provisions of law, the following report is submitted by the State Board of Education for the year ending September 30, 1886:

STATE NORMAL SCHOOL.

In the past year several important changes have been made in the faculty of the Normal school. July 22, Professor J. M. B. Sill, late superintendent of the Detroit city schools, was unanimously elected Principal of the Normal School at a salary of three thousand five hundred dollars per annum. J. P. Vroman, professor of ancient languages, tendered his resignation to take effect at the end of the school year. The resignation was accepted, and Professor Benj. L. D'Ooge of Ann Arbor was appointed to fill the vacant chair. Professor P. R. Cleary was appointed instructor of penmanship. Geo. F. Key, Henry T. Coe, Amelia Hale and W. P. Bowen were appointed instructors in mathematics, and W. W. Weeks was employed as instructor in Latin and Greek. Chas. E. St. Johns has been appointed assistant instructor in physical science. Mrs. Lydia Kneiss has been employed as instructor in history in the place of Miss Murphy.

VISITORS.

In compliance to the provisions of law the Board appointed visitors to the Normal School for the year 1886, as follows:

Supt. David Howell, Lansing; Prof. Geo. S. White, Jackson; and Hon. A. R. Avery of Port Huron. The report of the Board will be found in the Appendix.

NEEDS.

During the period covered by this report, the attendence at the Normal School has so largely increased as to render additional accommodations a pressing necessity. It is to be earnestly desired that at the coming session of the Legislature provision may be made for an addition to the present building that will at least meet the immediate demands of the institution.

EXAMINATION QUESTIONS.

As provided by law, the Board has provided questions for the regular examinations held in March and October, and also questions of the third grade for the special examinations held the last Friday in February, the second Friday in March, the last Friday in April, the last Friday in May, the last Friday in August, the second and last Fridays in September, and the last Friday in November.

The scheme of fixing dates and furnishing questions for the special examinations in order to secure general uniformity in the time of holding and in the conducting of examinations, has proved very successful. The law does not require the examiners to use these dates and questions, but they have been quite generally adopted throughout the State, and the number of boards asking for questions for these dates is constantly increasing.

STATE CERTIFICATES.

During the past year State Certificates have been granted to the following persons:

Upon Invitation—Mrs. Carrie H. Stanley, Kalamazoo; E. M. Russell, Paw Paw; L. C. Hull, Detroit; H. M. Slauson, Houghton; Miss Fanny Gray, Ypsilanti; Miss Mary Bassett, Allegan.

Upon Examination—Fred Glafke jr., Mendon; Abraham Kenchtel, St. Charles; Wm. E. Tripp, Weston; John Evert, Moorepark; T. Dorland Brown, Port Austin; Mrs. T. Dorland Brown, Port Austin.

CONCLUSION.

In conclusion, the members of the Board are pleased to report the continued growth and prosperity of the institution intrusted in their charge. This gratifying result is largely attributable to the pleasant relations that have continued to exist between the faculty of the Normal School and the members of the Board, resulting in that unity of purpose and action so essential to success.

BELA W. JENKS,
EDGAR REXFORD,
J. M. BALLOU,
THEODORE NELSON,
State Board of Education.

A.

REPORT OF THE ACTING PRINCIPAL FOR THE SCHOOL YEAR 1885-86.

To the State Board of Education:

GENTLEMEN—In accordance with the requirements of the law, I present the following report of the Normal School for the academic year 1885-86:

SUMMARY OF ATTENDANCE.

Normal Department		628
Training School:		
Primary Grades	136	
Grammar Grades	106	
		242
Total (all transfers excluded)		870

The following table shows the increase in attendance in the Normal Department for several years:

1878-9	292	1882-3	398
1879-80	298	1883-4	475
1880-1	318	1884-5	519
1881-2	330	1885-6	628

PROFESSORS AND INSTRUCTORS.

Daniel Putnam, M. A., Vice Principal, Mental and Moral Science, and Theory and Art of Teaching.

Julia A. King, Preceptress, History.

Frederic H. Pease, Vocal and Instrumental Music, and Director of the Conservatory of Music.

Charles Fitzroy Bellows, M. A., C. E., Mathematics.

Joseph P. Vroman, M. A., Latin and Greek Languages.

August Lodeman, M. A., German and French Languages.

Austin George, M. A., Director of the Training School.

Lucy A. Osband, M. A., Natural Sciences.

Edwin A. Strong, M. A. Physical Sciences.

Florus A. Barbour, B. A., English Language and Literature.

John Goodison, Geography and Drawing.

Helen M. Post, Assistant in Grammar and French.

William H. Brooks, Critic in Grammar grades of Training School.

Lois A. McMahon, Assistant in English Literature.

Anna A. Paton, Assistant in History and German.

Henry T. Coe, Assistant in Mathematics.

Willis A. Weeks, Instructor in Latin and Greek.

Amelia Hale, Instructor in Mathematics.

Charles E. St. John, Instructor in Physical Sciences.

Abbie Pierce, Critic in Primary Grades of Training School.

Ellen H. Murphy, Instructor in History.
P. R. Cleary, Penmanship.
George F. Key, Instructor in English.
Florence Goodison, Librarian.

GRADUATING CLASS.

Alice Archer, *Sci. Ger.*, Bay City.
Charles T. Andrews, *Eng.*, Canton.
May M. Burdick, *Sci.*, Benton Harbor.
Helen E. Bacon, *Lit. Ger.*, Pontiac.
Harriet A. Bray, *Lit. Lat.*, Middleville.
Susan R. Bailey, *Lit.*, Grand Rapids.
Arthur H. Burleson, *Lat. Ger.*, Quincy.
Lizzie A. Brown, *Eng.*, Buffalo, N. Y.
Eva Bates, *Eng.*, Hastings.
M. Ellen Brackett, *Eng.*, Petersburg.
Charles H. Burgess, *Eng.*, Flint.
Edwin A. Blakeslee, *Eng.*, Galien.
Wilbur P. Bowen, *Eng. Sh. Lat.*, Chelsea.
William W. Chalmers, *Sci. Cl.*, Rockford.
Gertrude Clark, *Lit. Fr.*, Crescent City, Fla.
Nora A. Clark, *Lit.*, Pompeii.
Lillie C. Crittenden, *Eng.*, Saline.
Luella Crippin, *Eng.*, Ypsilanti.
Mary S. Cooper, *Eng.*, Owosso.
Mrs. L. Adams DeWitt, *M. L. Lat.*, Flint.
Minnie L. Dixon, *Eng.*, Carson City.
Stephen Durfee, *Eng.*, Fowlerville.
Edwin DeBar, *Sci.*, Bath.
Matie C. Day, *Sci. Ger.*, Hudson.
Cora A. Deake, *Cl.*, South Lyon.
Libbie Dittmar, *Lit. Ger. Sh. Fr.*, Wyandotte.
Emily Flower, *Eng.*, Long Rapids.
Adaline Flower, *Eng.*, Long Rapids.
Florence A. Field, *Eng.*, Carson City.
Bettie M. Goodno, *Eng.*, Carson City.
Nellie E. Golden, *Eng.*, Escanaba.
Edward F. Gee, *Lat. Ger.*, Carleton.
Alice Goodison, *M. L.*, Ypsilanti.
Inie M. Gage, *Sci.*, Petoskey.
Clifford R. Houston, *Sci. Ger.*, Ypsilanti.
Dora S. Hart, *Lit.*, Charlotte.
Josephine A. Hart, *Sci.*, Flint.
Lilly Holman, *Sci.*, Hancock.
Emma John, *Eng.*, Wayne.
Lizzie Kelso, *Eng.*, Hudson.
William T. Kidd, *Eng.*, Owosso.
Lydia E. Kniss, *Lit. Fr.*, Schoolcraft.
Carrie Krell, *Sci.*, Grass Lake.
Hilda Lodeman, *M. L.*, Ypsilanti.
Glen C. Lawrence, *Sci.*, Charlesworth.
Carrie E. Merritt, *Eng.*, Kalamazoo.
Mary Merry, *Eng.*, Negaunee.
Ina A. Milroy, *Eng. Lat.*, Livonia.
H. Eugene Martin, *Eng. Sh. Ger.*, Dimondale.
Fannie Metzger, *M. L.*, Centreville.
Lillie Muir, *Sci.*, Erie.
George A. McGee, *Lat. Ger.*, Farmington.
Mildred M. Murray, *Sp. Mu.*, Ypsilanti.
Mary E. Miller, *Lat. Fr.*, Marshall.
Charles W. Mickens, *Sci. Sh. Lat.*, Lambertville.
Tibbie Matevy, *Sci.*, Chicago, Ill.
Mattie Newton, *Cl.*, Ypsilanti.
James E. Nichol, *Eng.*, Bronson.
Lester S. Overholt, *Eng.*, Fulton.
Andrew Paton, *Cl.*, Almont.
Willard A. Phillips, *Cl.*, Ypsilanti.
Fannie E. Pratt, *Eng.*, Irving.
Edward M. Plunkett, *Sci.*, Vernon.
Edward J. Quackenbush, *Eng. Sh. Lat.*, Ann Arbor.
Jennie M. Ressler, *Eng.*, Ypsilanti.
Clarence E. Smith, *Lit. Sh. Lat.*, Morenci.
Mary B. St. Clair, *Eng.*, Bay City.
Myra Soper, *Eng.*, Vienna, Ontario.
Eva Smith, *Eng.*, Eureka.
Kate Turner, *Lit.*, Williamston.
Clara C. Thompson, *Lit.*, Charlotte.
Guy E. Transue, *Eng. Sh. Lat.*, Saranac.
Charles J. Transue, *Eng.*, Saranac.
Isabella Winnie Thompson, *Eng.*, Kalamazoo.

GRADUATING CLASS.—*Continued.*

Spencer L. Houghton, *Lat. Ger.*, Albion.
Mary Grace Hammond, *Eng. Sh. Lat.*, Bay City.
Louise A. Helmuth, *Eng. Sh. Lat.*, South Lyon.
Anna E. Hess, *Eng.*, Three Oaks.
Julia Hoffman, *Eng.*, Port Huron.
Will Jessup, *Eng.*, Dowagiac.
Bessie James, *Eng.*, Calumet.
Minerva M. Udell, *Eng. Lat. Sh. Fr.*, Groton, Dakota.
Oscar I Woodley, *Sci. Sh. Lat.*, Aurelius.
Myrtelle Whitney, *Lat. Fr.*, Hudson.
Eleanor Blanche Weyers, *Eng.*, Port Huron.
Annie C. White, *Eng.*, Hancock.
Ellis D. Walker, *Eng.*, Brooklyn.

EXHIBIT A.

COURSES OF INSTRUCTION.

SCIENTIFIC COURSE.

First Year.

First Term—1. Arithmetic. 2. Grammar and Composition. 3. Reading and Orthography. 4. Vocal Music.

Second Term—1. Algebra. 2. Geography. 3. Botany. 4. Elementary Drawing.

Second Year.

First Term—1. Algebra. 2. History of the United States. 3. Advanced Drawing. 4. Physiology and Hygiene, 15 weeks; Narcotics, 5 weeks.

Second Term—1. Geometry. 2. Rhetoric. 3. Elementary Physics. 4. Penmanship, 10 weeks; Zoölogy, 10 weeks.

Third Year.

First Term—1. Geometry. 2. Comparative Zoölogy and Physiology, 10 weeks; Civil Government, 10 weeks. 3. Outlines of History. 4. Mental and Moral Science.

Second Term—1. Higher Algebra. 2. English Literature. 3. Professional Training in Common Branches. 4. Mental Science applied to Teaching and School Management.

Fourth Year.

First Term—1. Chemistry. 2. Higher Physics. 3. Geology 10 weeks; book-keeping, 10 weeks. 4. Practice Teaching and Criticism. Essays.

Second Term—1. Chemistry, 10 weeks; Astronomy 10 weeks. 2. Trigonometry and Surveying. 3. Political Science, 10 weeks; Training in Physical Science and History of Education, 10 weeks. 4. Practice Teaching and Criticism. Essays.

LITERARY COURSE.

First Year.

First Term—1. Arithmetic. 2. Grammar and Composition. 3. Reading and Orthography. 4. Vocal Music.

Second Term—1. Algebra. 2. Geography. 3. Botany. 4. Elementary Drawing.

Second Year.

First Term—1. Algebra. 2. History of the United States. 3. Rhetoric. 4. Physiology and Hygiene, 15 weeks; Narcotics, 5 weeks.

Second Term—1. Geometry. 2. English Literature. 3. Elementary Physics. 4. Penmanship, 10 weeks; Zoölogy, 10 weeks.

Third Year.

First Term—1. Geometry. 2. English Literature, 10 weeks; Civil Government, 10 weeks. 3. Grecian and Roman History. 4. Mental and Moral Science.

Second Term—1. English History. 2. American Literature. 3. Professional Training in Common Branches. 4. Mental Science Applied to Teaching, and School Management.

Fourth Year.

First Term—1. Chemistry. 2. General Literature. 3. Universal History. 4. Practice Teaching and criticism. Essays.

Second Term—1. American History. 2. Advanced Rhetoric, etc. 3. Political Science, 10 weeks; Training in Physical Science, and History of Education, 10 weeks. 4. Practice Teaching and Criticism. Essays.

LANGUAGE COURSE.

First Year.

First Term—1. Latin or German. 2. Physiology and Hygiene, 15 weeks; Narcotics, 5 weeks. 3. Arithmetic. 4. Vocal Music.

Second Term—1. Latin or German. 2. Algebra. 3. History of the United States. 4. Penmanship, 10 weeks; Reading and Orthography, 10 weeks.

Second Year.

First Term—1. Latin or German. 2. Greek or French. 3. Algebra. 4. Rhetoric.

Second Term—1. Latin or German. 2. Greek or French. 3. Geometry. 4. Elementary Physics.

Third Year.

First Term—1. Latin or German. 2. Greek or French. 3. Geometry. 4. Mental and Moral Science.

Second Term—1. Latin or German. 2. Greek or French. 3. Professional Training in Common Branches. 4. Mental Science applied to Teaching, and School Management.

Fourth Year.

First Term—1. Latin or German. 2. Greek or French. 3. Chemistry. 4. Practice Teaching and Criticism. Essays.

Second Term—1. Latin or German. 2. Greek or French. 3. Civil Government, 10 weeks; Training in Physical Science and History of Education, 10 weeks. 4. Practice Teaching and Criticism. Essays.

ENGLISH COURSE.

First Year.

First Term—1. Algebra. 2. Grammar and Composition. 3. Geography. 4. Object Drawing.

Second Term—1. Algebra. 2. Grammar and Composition. 3. Arithmetic. 4. History of the United States.

Second Year.

First Term—1. Algebra. 2. Elementary Physics. 3. Rhetoric. 4. Physiology and Hygiene, 15 weeks; Narcotics, 5 weeks.

Second Term—1. Geometry. 2. Vocal Music. 3. Outlines of History. 4. Literary Reading, 10 weeks; Special Work, 10 weeks.

Third Year.

First Term—1. Penmanship, 10 weeks. 2. Reading and Orthography, 10 weeks. Professional Work in Common Branches, 2 hours a day. 10 weeks. 3. Mental and Moral Science. 4. Practice Teaching and Criticism. Essays.

Second Term—1. Civil Government, 10 weeks; Laboratory Practice and History of Education, 10 weeks. 2. Mental Science applied to teaching, and School Management. 3. Botany. (Chemistry may be substituted for Botany.) 4. Practice Teaching and Criticism.

SPECIAL COURSE WITH MUSIC.

First Year.

Any of the other courses which the student may select with the approval of the Principal.

Second Year.

First Term—1. Elements of Vocal Music with Methods of Instruction. 2. Algebra. 3. Rhetoric. 4. German, French or Latin. Instrumental Music may be substituted for 2, 3 or 4.

Second Term—1. Advanced Vocal Music and Voice Culture. 2. Elemetary Physics. 3. English Literature. 4. German, French or Latin. Instrumental Music may be substituted for 2, 3 or 4.

Third Year.

First Term—1. Harmony. 2. Voice Culture. 3. Mental and Moral Science. 4. German, French or Latin. Instrumental Music may be substituted for 4.

Second Term—1. Harmony. 2. Voice Culture. 3. Mental Science Applied to Teaching, and School Management. 4. Professional Training in Common Branches. Instrumental Music may be substituted for 3 in fourth year, second term.

Fourth Year.

First Term—1. Musical Composition and Literature of Music. 2. Solo Singing. 3. Language or Literature. 4. Practice Teaching and Criticism. Essays. Instrumental Music may be substituted for 3.

Second Term—1. Solo Singing. 2. Literature. 3. German, French or Latin. History of Education, 10 weeks, alternate days. 4. Practice Teaching and Criticism. Essays. Instrumental Music may be substituted for 2.

SPECIAL COURSES.

Latin, Greek, German, or French may be substituted in the Scientific Course, as follows:

First Year—In place of any subject in which the student shall pass a satisfactory examination.

Second Year—First Term; in place of Outlines of History of the third year. Second Term; in place of English Literature.

Third Year—First Term; in place of Comparative Zoölogy and Book-keeping. Second Term; in place of Higher Algebra.

Fourth Year—First Term; in place of Higher Physics. Second Term; in place of Surveying and 10 weeks of Chemistry.

And in the Literary Course as follows:

First Year—In place of any subject in which the student shall pass a satisfactory examination.

Second Year—First Term; in place of Grecian and Roman History. In this case United States History comes in the first term of the third year. Second Term; in place of English Literature, 10 weeks, and Zoölogy, 10 weeks. In this case Penmanship comes in the first term of the third year.

Third Year—First Term; in place of American History. In this case English History comes in the second term of the fourth year. Second Term; in place of American Literature.

Fourth Year—First Term; in place of General Literature. Second Term; in place of Advanced Rhetoric.

NOTE.—When the substitution is in the Scientific or Literary Course, the course is denominated "Scientific (or Literary) with Latin (or Greek, or German, or French) Substitution," as the case may be. There may be a substituted course in the languages of two years, and in such case the course is called "Scientific (or Literary) with Shorter Latin (or Greek, or German, or French)," as the case may be. The full or the two years' Language Course may be ADDED to the English Course, in which case it is called the "English with Full (or Shorter) Latin (or Greek, or German, or French)," as the case may be.

EXHIBIT B.

TEXT AND REFERENCE BOOKS.

English Grammar and Composition—*Swinton.*
English and American Literature—*Shaw, Royse.*
United States History—*Bush's Berard, Eliot, Ridpath.*
General History—*Anderson's Series.*
Zoölogy—*Tenny, Orton, Packard.*
Botany—*Wood, Gray, Bessey.*
Geology—*Dana, Winchell.*
Physiology—*Brown, Hutchinson.*
Book-keeping—*Woolley.*

Elementary Algebra—*Bellows.*
Higher Algebra—*Olney.*
Arithmetic (methods)—*Bellows.*
Geometry—*Bellows.*
Trigonometry—*Bellows.*
Rhetoric—*D. J. Hill.*
Elementary Physics—*Gage.*
Higher Physics—*Gillet and Rolfe.*
Chemistry—*Youmans, Barker.*
Astronomy—*Newcomb and Holden.*
Latin Grammar—*Allen and Greenough.*
Latin Reader—*Allen and Greenough.*
Cæsar—*Allen and Greenough.*
Cicero—*Allen and Greenough.*
Virgil—*Allen and Greenough or Frieze.*
Horace—*Lincoln.*
Greek Grammar—*Goodwin and Hadley.*
First Greek Book—*White.*
Anabasis—*Goodwin.*
Sketches from Historians—*Boise and Freeman.*
Iliad—*Boise.*
History of Greece—*Smith.*
Science and Art of Teaching—*Putnam.*
Mental Science—*Hamilton, Haven.*
Moral Science—*Lectures.*

Books used in the Department of Modern Languages are indicated in the description of courses in that department.

TEXT BOOKS USED IN TRAINING SCHOOL.

Arithmetic—*Bellows, Olney.*
Language—*Swinton, Reed and Kellogg.*
Readers—*Modern School.*
Geography—*Appleton, Our World.*
United States History—*Higginson, Swinton.*
Penmanship—*Spencerian.*
Dictionary—*Webster.*
Drawing—*White.*
Music—*Pease, Tufts and Holt.*
Other books are used when desirable.

EXHIBIT C.

NORMAL CONSERVATORY OF MUSIC.

The course in vocal music in the Normal School is sufficiently extensive and thorough to prepare teachers to give the elementary instruction usually required in this subject in the public schools; yet, there is a great demand for teachers who can do higher work than this course contemplates—teachers who are fully prepared to conduct choral classes and give instruction in instrumental music. In view of this fact, the State Board of Education has arranged with the Professor of Music in the Normal School to organize and become Director of the Normal Conservatory of Music, thus associating with himself able and efficient instructors in the various departments of the science and art of music, and providing, without any additional expense to the State, ample opportunities to students in the Norman School to pursue to any desired extent the study and practice of vocal and instrumental music. Those intending to pursue studies in the Conservatory should apply for special circular.

The attendance has been as follows during the year:

Voice Culture and Singing	89	
Piano Department	35	
Organ Department	2	
Violin Department	5	
Cornet Department	2	
Musical Composition	9	
Harmony	18	
Aggregate		160
Counted more than once		37
Total		123

GENERAL REMARKS.

The year has been one of unusual prosperity, and has been marked by exceptional efficiency and harmony in the internal working of the school. The students, as a body, have been characterized by zeal and industry in their studies, and by general good conduct both in immediate connection with the school and also in their relations to the society of the city. An effort has been made to cultivate that spirit of self-control and honor which should constitute an essential element in the character of every teacher. This effort seems to have been fairly successful. At the opening of the year the following statements were printed and placed in the hands of the members of the school:

PRINCIPLES OF ADMINISTRATION, ETC.

It is taken for granted by the administration of the school that students enter the Normal solely for purposes of study and instruction, and that they will devote their time and attention to these subjects; that they will abstain from everything which would tend to hinder their own progress in their appropriate work, or would, in any degree, interfere with the progress or rights of others.

It is also assumed that they are acquainted with the usages and rules which govern the conduct and intercourse of ladies and gentlemen in general society and in well-regulated families, and that they will conform to these usages and rules at all times and in all places.

It is required that students devote proper hours of the day, and evening hours of school days, commencing at 7:30 from the beginning of the Fall term to the first of April, and at 8.30 during the remainder of the year, to the preparation of lessons and other school-work in their own rooms, and that they be in their own rooms at and after 10:30 on all evenings. This requirement is made, not only to encourage regular and systematic study, but also to protect industrious and faithful students against loss of time occasioned by improper and unnecessary interruptions. Students are at liberty to attend public meetings, lectures, concerts, and other entertainments of proper character, provided such attendance does not interfere with the punctual and thorough performance of their school duties.

It is suggested that students seek counsel and advice of their instructors in all cases of doubt in respect to the propriety or advantages of any proposed employment of time, or any course of life and conduct. The interests of teachers and pupils in all such matters are identical.

The members of the Board of Instruction deserve large credit for the energy and wisdom with which they have administered and instructed their several departments. The special professional work of the school, which has been improving steadily for some time, has taken on, in several directions, a more systematic and consistent character. There is good reason to anticipate still further and more marked improvement in this work, a work for which only the institution has any just claims to continued support.

To hasten this result it is necessary that the general administration of the school make it a constant aim to secure such practical application of pedagogical principles and such unification of professional instruction that all departments shall be pervaded by the same professional spirit, and shall labor intelligently for the same end.

It will be observed from the summary that the attendance has been considerably larger than during any previous year since the opening of the institution. There is good reason to anticipate a still further increase in the number of students. This increase in numbers makes a demand for enlarged accommodations. Such additions to the present buildings are needed as will furnish two large study halls, one for ladies and one for gentlemen. Additional class rooms also are required both in the Normal department and in the training school. The library and reading room are quite too small for the accommodation of even the present body of students. It is to be hoped that the next Legislature will see that the educational interests of the State imperatively demand an appropriation for this enlargement and increase of accommodations.

DANIEL PUTNAM,
Acting Principal.

YPSILANTI, June 30, 1886.

B.

REPORT OF BOARD OF VISITORS FOR 1885-6.

HON. THEODORE NELSON,
Superintendent of Public Instruction:

SIR—Your committee selected to visit officially and examine the State Normal School would respectfully submit the following report:

A part of the committee made visits at different periods of the school year, so that

they were enabled to see the daily work of the school, and to be present at the commencement exercises. The class-room work was eminently satisfactory, and the practice teaching in the school of observation and practice seemed to be of as high order as could be expected from inexperienced teachers, working under the limitations of the system there adopted. The only suggestion which your committee would offer, concerning this department, is that there should exist a greater degree of harmony between the methods adopted in the practice school and those presented by the heads of departments.

The botanical laboratory seemed to be greatly in need of microscopes and other aids for prosecuting the study of botany as it is now generally presented. The philosophical and chemical laboratories need generous treatment from the Board of Control; these departments being no better equipped than many of the laboratories connected with high schools of the State.

The pressing need of the School, however, in the judgment of your committee, is additional school-room facilities. The constantly increasing growth of the school demands of the Legislature earnest consideration of this subject.

The importance of professional instruction in the preparation of the teachers of the State is so paramount, the tendency to attach normal departments to other schools and colleges so marked, and the instruction so diversified, that your committee are constrained to suggest to the Legislature the propriety of enlarging the duties of the State Board of Education so that body shall have supervisory power over all departments or schools where normal instruction is made a distinctive feature.

It is the hope of your committee that the scope and usefulness of the Normal School may be so extended that the ungraded schools of the State may feel its invigorating influence.

The commencement exercises were of the accustomed character, and exceptionally high order.

Respectfully submitted,

DAVID HOWELL,
Chairman of Committee.

C.

ESTIMATES.

The State Board of Education submit the following report of estimated receipts and disbursements at the Michigan State Normal School for the years 1887 and 1888:

Salaries.		1887.	1888.
Principal		$3,500 00	$3,500 00
Professor of Mental and Moral Science		2,500 00	2,500 00
" Music		2,000 00	2,000 00
" Mathematics		2,000 00	2,000 00
" German and French		2,000 00	2,000 00
" Physical Sciences		2,000 00	2,000 00
" English Language and Literature		2,000 00	2,000 00
" Latin and Greek		2,000 00	2,000 00
" Drawing and Geography		2,000 00	2,000 00
" Natural Sciences		1,000 00	1,000 00
Director of Training School		2,000 00	2,000 00
Preceptress		1,500 00	1,500 00
Critic in Training School		1,000 00	1,000 00
" "		800 00	800 00
Instructor in Grammar and French		800 00	800 00
" English Literature		800 00	800 00
" History and German		800 00	800 00
" Mathematics		800 00	800 00
" Physical Sciences		800 00	800 00
" Mathematics		400 00	400 00
" "		350 00	350 00
" History		350 00	350 00
" Latin and Greek		400 00	400 00
" English Literature		400 00	400 00
" Natural Sciences		350 00	350 00
Two extra instructors		1,000 00	1,000 00
Librarian		400 00	400 00
Clerk and Secretary		450 00	450 00
Janitor		1,128 00	1,128 00
Current Expenses.			
Library		1,500 00	1,500 00
Apparatus		500 00	500 00
Wood and coal		2,200 00	2,200 00
Alteration and repairs		1,000 00	1,000 00
Gas and gas fixtures		400 00	400 00
Museum		500 00	500 00
Chemicals		200 00	200 00
Stationery		150 00	150 00
Printing		600 00	600 00
Postage		100 00	100 00
Furniture		600 00	600 00
Labor		200 00	200 00
Labor on grounds		200 00	200 00
Express		75 00	75 00
Freight and cartage		75 00	75 00
Visiting committee		150 00	150 00
Training school expenses		100 00	100 00
School supplies		400 00	400 00
Contingent expenses		300 00	300 00
Total		$44,878 00	$44,878 00
Interest on endowment fund	$4,200 00		
Tuition and laboratory fees	2,200 00		
		6,400 00	6,400 00
Amount of Legislative appropriation needed for salaries and current expense for the years 1887 and 1888		$38,478 00	$38,478 00

The State Board of Education will also ask the Legislature to make an appropriation of $60,000.00 for an addition to the present Normal School building. The reasons for this addition are fully set forth in the foregoing reports.

D.

INVENTORY.

A summary of inventory property belonging to the Michigan State Normal School, September 30, 1886:

Five and nine hundred and thirty-five one-thousandths acres of land	$7,400 00
One brick building used for Conservatory of Music	8,000 00
Main Normal School building	104,000 00
Two out-houses	1,800 00
A library of 7,066 volumes	15,000 00
One concert grand piano	740 00
One parlor grand piano	330 00
One square piano	100 00
Two reed organs	200 00
One upright piano	250 00
Models for drawing	135 00
Outline and other maps	200 00
Reading and other charts	105 00
Terrestial globes	50 00
Collections in natural history and geology	1,300 00
Skeleton and charts	60 00
Centennial map of the United States	50 00
Equatorial telescope	300 00
Transit telescope	320 00
Chronometer	300 00
Celestial globe	35 00
Tellurian globe	45 00
Frictional electrical machine	60 00
Holtz' electrical machine	100 00
Atwood's machine	100 00
Air pump	50 00
Spectroscope	100 00
Induction coil	100 00
Calcium light lantern and slides	150 00
Microscope	50 00
Sciopticon	40 00
Two foot-lathes and tools	250 00
Galvanometer, thermopile and reflectors	50 00
One scroll-saw	20 00
One portable forge	18 00
Level, etc	90 00
Hydrometer and thermometer	10 00
Siren, organ pipes, steel cylinders	40 00
Geissler and Crookes' tubes	25 00
Small electro-magnets and instruments	25 00
Batteries, galvanic	25 00
Receivers, weight-lifter, etc., for air-pump	25 00
Leyden jars and apparatus for electric machine	25 00

Prisms, mirrors and lenses	$30 00
Models of ear and eye	15 00
Models of mechanical powers, pumps, etc	15 00
Common balances	25 00
Barometers and thermometers	30 00
Miscellaneous glassware	10 00
Hydrostatic and hydraulic apparatus	20 00
Miscellaneous home-made pieces	100 00
Re-agent bottles	100 00
Chemical balance	75 00
Faraday lined furnace	15 00
Oxyhydrogen blow-pipe	15 00
Chemical glassware	50 00
Chemicals and miscellaneous	50 00
Rubber gas-holders	10 00
Hydrogen generator, copper	10 00
Rubber tubing and Bunsen lamps	20 00
Iron stands and condenser for distilled water	20 00
Oxygen generator, two blast lamps	10 00
School desks, and seats, recitation seats, chairs, tables, teachers' desks, book-cases for teachers, office desk, and other furniture	6,000 00
Clocks and electric bells, tables, etc., in laboratory; chandeliers, and gas fixtures, carpets, cases for museum and library	19,009 00
One 2-manual organ	3,100 00
Total	$170,798 00

E.

FINANCIAL EXHIBIT FOR 1885-6.

State Board of Education in account with Edgar Rexford, Treasurer.

Salaries.

J. M. B. Sill, 1 month	$350 00
Daniel Putnam, 10 months	2,950 00
F. H. Pease, ten months	2,000 00
C. F. R. Bellows, 10 months	2,000 00
A. Lodeman, 10 months	2,000 00
J. P. Vroman, 9 months	1,800 00
Austin George, 10 months	2,200 00
E. A. Strong, 10 months	2,000 00
F. A. Barbour, 10 months	2,000 00
B. L. D'Ooge, 1 month	150 00
John Goodison, 10 months	1,000 00
William H. Brooks, 10 months	1,050 00
Henry T. Coe, 10 months	700 00
Charles E. St. John, 10 months	430 00
Willis W. Weeks, 10 months	400 00
George F. Key, 8 months	280 00
Wilbur P. Bowen, 1 month	40 00
Clarence E. Smith, 1 month	40 00

P. R. Cleary, 12 weeks	$100 00
Julia A. King, 10 months	1,500 00
Lucy A. Osband, 10 months	1,000 00
Helen M. Post, 10 months	700 00
Lois A. McMahon, 10 months	700 00
Anna A. Paton, 10 months	700 00
Abbie Pearce, 10 months	700 00
Amelia Hale, 10 months	350 00
Ellen Murphy, 9 months	315 00
Florence Goodison, 10 months	400 00
Lydia E. Kniss, 1 month	35 00
C. C. Vroman, 12 months	1,064 00
	$28,954 00

CURRENT EXPENSE ACCOUNT.

Date.	No. of Voucher.	To Whom Paid.	Amount.
Oct. 31	1	Pay roll (shown in salary account)	$2,773 33
Nov. 30	2	Pay roll (shown in salary account)	2,808 33
Dec. 29	3	American Express Co., express	25
29	4	Moses Lesprouce, painting	16 90
29	5	Jas. H. Davis, two lawn rakes	1 00
29	6	Walter Bedford, cleaning building	3 50
29	7	Chas. Fleming, general repairs	87 02
29	8	Chas. Fleming, carpenter work in museum	1 75
29	9	Detroit Electrical Works, vibrating bell	2 25
29	10	Henry Bedford, cleaning building	40
29	11	Tel. & Tel. Cons't Co., use of telephone	24 00
	12	D. Putnam, expenses to Lansing	6 55
29	13	Lucy A. Osband, museum expenses	4 25
29	14	R. N. Reynolds, museum supplies	131 80
29	15	Walter Bedford, cleaning building	2 00
29	16	C. C. Carr, cartage	70
29	17	Jas. Coquillard, repairing ceiling	4 00
29	18	Mich. School Furniture Co., set of charts	9 00
29	19	Henry Bedford, cleaning building	80
29	20	Chas. Stelinger & Co., laborator supplies	27 68
29	21	C. Dorflinger & Sons, glass jars	32 28
	22	Henry A. Ward, museum specimens	96 40
29	23	McCollough Bros., steam and gas fitting	41 40
29	24	Chas. Fleming, carpenter work	36 79
29	25	Ypsilanti Gas Co., 11,000 feet of gas	22 00
29	26	Frank Norton, museum specimens	5 00
29	27	Henry A. Ward, museum specimens	115 00
29	28	H. B. Claflin, carpet	160 80
29	29	Lucy A. Osband, museum expenses	5 80
29	30	Parsons Bros., labor and building material	14 71
29	31	Walter Bedford, cleaning building	2 70
29	32	P. R. Cleary, teaching 10 weeks (shown in salary account)	50 00
29	33	R. N. Reynolds, museum supplies	18 40
29	34	Eberbach & Son, chemicals	19 87
29	35	Eberbach & Son, chemicals	18 48
29	36	Ypsilanti Gas Co., 43,600 feet of gas	87 20
29	37	E. A. Strong, apparatus	84 55
29	38	Johnson & Son, on organ account	1,900 00

1885.	No. of Voucher.	To Whom Paid.	Amount.
Dec. 29	39	George W. Hough, envelopes, crayons, pencils, etc.	86 05
29	40	Wallace & Clark, cases, wash-sink, desk, etc	41 90
29	41	C. W. Rogers, music, charts and stands	22 40
29	42	C. D. Stuart & Co., 324 mahogany chairs	251 70
31	43	Pay roll (shown in salary account)	2,808 34
1886.			
Jan. 30	44	Pay roll (shown in salary account)	2,808 33
Feb. 16	45	American Express Co., express	30
16	46	Walter Bedford, cleaning building	2 00
16	47	Geo. C. Amsden, painting	53 52
16	48	Amsden & Rogers, painting	8 75
16	49	Homer Briggs, freight and cartage	10 33
16	50	James A. Bailey, extra allowance as janitor	12 00
16	51	American Express Co., express	25
16	52	Detroit Metal and Heating Co., repairing steam heating	17 47
16	53	Adam J. Orth, slate and slater	43 85
16	54	Michigan School Furniture Co., 18 settees	82 00
16	55	D. B. Green, one bible	2 75
16	56	Daniel Putnam, expenses to Lansing and return	13 45
16	57	Walter Hewitt, tuning piano	5 00
16	58	Seward Albright, freight and cartage	2 42
16	59	American Express Co., express	19 95
16	60	American Express Co., express	3 30
16	61	American Express Co., express	1 68
16	62	Tel. & Tel. Cons't Co., use of telephone	24 00
16	63	F. H. Pease, expenses in purchasing organ	10 95
16	64	John A. Wilson, cutting carpet	1 00
16	65	Ypsilantian, printing	23 97
16	66	Frank A. Norton, work in natural history department	7 00
16	67	Lucy A. Osband, goods for museum	1 80
Dec. 16	68	Tribune Printing Co., advertising in Michigan almanac	20 00
16	69	Detroit Electrical Works, apparatus for laboratory	18 95
16	70	C. A. Thatcher, portrait of Hon. W. J. Baxter	37 00
16	71	American Express Co., express	55
16	72	Ypsilanti Commercial Printing Co., printing	35 00
16	73	Peninsular Paper Co., paper	7 40
16	74	C. W. Rogers, music readers, charts, etc.	11 00
28	75	Pay roll (shown in salary account)	2,808 33
1886.			
Mar. 11	76	Edwin Willits, fare to Philadelphia and return	12 85
11	77	American Express Co., express	2 20
11	78	Walter Bedford, cleaning building	7 50
11	79	E. A. Strong, repairing microscope	2 75
11	80	D. Putnam, maps, blank books, etc.	5 81
11	81	W. C. Stevens, hardware	6 46
11	82	Ypsilanti Broom Co., 1 doz. brooms	3 50
11	83	Geo. S. White, member of visiting committee	14 10
11	84	D. Howell, member of visiting committee	12 00
11	85	Ypsilanti Gas Co., gas fixtures	6 00
11	86	Ypsilanti postoffice, postal cards and stamps	18 00
11	87	Frank Smith, chemicals, stationery, etc.	92 10
11	88	H. R. Pattengill, printing	40 00
11	89	Detroit Metal and Heating Works, one set grate bars	24 30
11	90	Union School Furniture Co., 1 box crayons	3 00
11	91	H. T. Coe, printing blanks	1 50
11	92	G. F. Shaffer, repairing harness	30
11	93	C. C. Vroman, putting up 324 chairs	8 10
31	94	Pay roll (shown in salary account)	2,808 34

1886.	No. of Voucher.	To Whom Paid.	Amount.
Apr. 21	95	Johnson & Son, balance on organ	$1,200 00
21	96	Henry T. Coe, Printing	2 00
21	97	Peninsular Paper Co., paper	4 00
29	98	E. A. Strong, apparatus	7 24
29	99	Chas. Fleming, carpenter work	94 52
29	100	Chas. Fleming, carpenter work	43 85
29	101	Chas. Fleming, carpenter work	6 33
29	102	Chas. Fleming, carpenter work	7 13
29	103	American Express Co., express	55
29	104	C. F. R. Bellows, 66 feet steel chain and pins	12 00
29	105	Lucy A. Osband, models for museum	4 53
29	106	Ducharme, Fletcher & Co., 7 doz. sash locks	12 01
29	107	W. H. Pollard, cleaning ashes and snow	6 25
29	108	W. H. Harrison, shoveling ashes, etc	4 75
29	109	Henry Bedford, cleaning building	2 00
29	110	James Wilson, cleaning outhouses	8 00
29	111	James S. Pencil, one coal rake and hook	2 00
29	112	A. A. Graves, matches	50
29	113	E. W. Bowen, 1 doz. brooms	4 00
29	114	Wm. H. Harrison, work on grounds	6 00
29	115	Wm. H. Pollard, work on grounds	7 50
29	116	Wm. H. Pollard, work on grounds	5 00
29	117	Wm. H. Harrison, work on grounds	1 00
29	118	Geo. T. Pencil, 1 iron wheelbarrow	2 10
29	119	W. Hewitt, tuning piano	3 00
29	120	Ypsilanti Gas Co., 64,700 feet of gas	129 40
30	121	Pay roll (shown in salary account)	2,819 00
May 31	122	Pay roll (shown in salary account)	2,819 00
June 29	123	Frank A. Norton, work in museum	7 00
Apr. 29	124	Lucy A. Osband, specimens for museum	4 27
June 29	125	Wm. S. Putnam, pumping organ	70
26	126	Henry Bedford, cleaning building	3 10
29	127	Henry Calvert, work on grounds	2 63
29	128	P. R. Cleary (shown in salary account)	50 00
29	129	E. A. Strong, ½ bbl. blue vitriol	9 75
29	130	Chas. Fleming, carpenter work and lumber	68 87
29	131	Lucy A. Osband, glass, etc., for museum	6 19
29	132	American Express Co., express	65
29	133	American Express Co., express	1 15
29	134	E. P. Allen, insurance	56 25
29	135	American Express Co., express	25
29	136	John Goodison, 1 slate blackboard	6 00
29	137	Geo. F. Key, printing	5 00
29	138	W. Putnam, pumping organ	2 00
29	139	Tel. & Tel. Cons't Co., use of telephone	24 00
29	140	Chas. E. St. John, boxing and cartage	60
29	141	Detroit Evening News, advertising	1 28
29	142	A. R. Avery, member of visiting committee	11 30
29	143	Peninsular Paper Co., paper	9 00
29	144	Mrs. C. Worden, making carpet	10 35
29	145	Winn & Hammond, invitations, programs, etc	7 25
29	146	Calvert Lith. and Eng. Co., diplomas	75 00
29	147	Walter Bedford, cleaning building	2 50
29	148	Van Leyen & Co., engraving of Normal School	30 00
29	149	W. H. Sweet, ribbon for diplomas	9 24
29	150	Ypsilantian, printing	231 75
30	151	Wm. H. Brooks, copying, lettering diplomas, etc	75 00

1886	No. of Voucher.	To Whom Paid.	Amount.
June 29	152	D. Putnam, preparing diplomas, etc	$7 50
29	153	Austin George (shown in salary account)	200 00
29	154	Edgar Rexford, services as treasurer of Normal School	300 00
30	155	Ypsilanti Gas Co., 24,900 feet of gas	49 80
30	156	Pay roll (shown in salary account)	2,819 00
29	157	Lucy A. Osband, museum supplies	2 44
29	158	Frank Smith, school supplies	38 66
29	159	Wallace & Clark, case and shelves	11 00
29	160	Wallace & Clark, 1 large office desk	28 00
29	161	Walter Hewitt, tuning piano	5 00
29	162	Follmor & Scovill, lumber	15 26
30	163	Frank A. Norton, work in museum	14 00
30	164	J. H. Manning, telegrams	3 91
Sept. 30	165	Will S. Putnam, pumping organ	2 85
30	166	American Express Co., express	25
30	167	Barns Bros., paper for training school	10 00
30	168	Normal News, advertising school in paper	50 00
30	169	Tel. & Tel. Cons't. Co., use of telephone	24 00
30	170	American Express Co., express	40
30	171	D. Howell, visiting committee	13 30
30	172	John Wilson, hauling coal	13 97
30	173	Whitmore & Co., hauling coal	29 35
30	174	E. A. Strong	2 50
30	175	Jas. H. Taylor, hauling coal	112 35
30	176	Pennsylvania Coal Co., 362 192-2000 tons coal	1,614 95
30	177	Homer Briggs, freight and cartage	3 65
30	178	Homer Briggs, freight and cartage	5 71
30	179	Homer Briggs, freight and cartage	10 00
Aug. 31	180	Pay roll (shown in salary account)	188 00
Sept. 30	181	Ypsilanti postoffice, postal cards and stamps	43 98
30	182	Ypsilanti postoffice, postal cards and stamps	27 31
30	183	Ladies' Library Association, commencement dinner	175 00
30	184	Wallace & Clark, repairing furniture	1 90
30	185	John Bibb, cleaning outhouses	10 00
30	186	H. B. Claflin & Co., matting	74 88
30	187	William H. Pollard, work on grounds	2 50
30	188	Ypsilanti Commercial Printing Co., printing	26 25
30	189	W. W. Worden, painting	1 55
30	190	Chas. Fleming, carpenter work and lumber	652 10
30	191	Mich. Bell Telephone Co., telephone messages	5 95
30	192	Mich. Bell Telephone Co., telephone messages	3 05
30	193	Will Putnam, pumping organ	1 00
30	194	Richmond & Backus Co., class register, index, etc	25 90
30	195	Peninsular Paper Co., paper	6 80
30	196	J. M. B. Sill, advertising books, paper, etc	12 00
30	197	D. Putnam, paid for labor and express	80
30	198	Ypsilanti Gas Co., gas fixtures	32 10
30	199	Ypsilanti Gas Co., 8,300 feet of gas	16 60
30	200	W. C. Stevens, hardware	7 77
30	201	American Express Co., express	80
30	202	American Express Co., express	1 00
30	203	Smith & Powers, printing	14 75
30	204	Pay roll (shown in salary account)	3,144 00
		Disbursements on account of current expenses for year ending Sept. 30, 1886	$38,651 97

1885.		DEBIT.	
Oct. 31	Transferred to library fund		$1,500 00
1886.			
Jan. 31	Transferred to library fund		1,500 00
Sept. 30	Current expenses as per above statement		38,651 97
30	Balance to new account		369 02
			$42,020 99

1885.		CREDIT.	
Sept. 30	Balance from old account		$248 74
Oct. 7	By Cash from State Treasurer		11,545 00
Dec. 31	" "	tuition	1,366 50
31	" "	diploma fees	12 00
1886.			
Jan. 16	" "	State Treasurer	10,000 00
Apr. 3	" "	State Treasurer	10,000 00
June 1	" "	organ concert	25 55
30	" "	tuition	1,327 50
30	" "	diploma fees	277 00
30	" "	laboratory fees	186 00
July 6	" "	State Treasurer	7,000 00
17	" "	organ concert	31 70
			$42,020 99

SPECIAL FUNDS ACCOUNT.

State Board of Education in Account with Edgar Rexford, Treasurer.

1886.	No. of Voucher.	To Whom Paid.	Amount.
Sept. 29	1	W. J. McKone, on account of library	$3 75
29	2	Sheehan & Co., " "	1 60
29	3	John MacFarlane, " "	98 29
29	4	John MacFarlane, " "	38 10
Dec. 29	5	W. E. Dunning, " "	5 50
29	6	R. R. Bowker, " "	2 00
29	7	W. J. McKone, " "	4 75
29	8	John MacFarlane, " "	81 39
29	9	John MacFarlane, " "	81 27
29	10	John MacFarlane, " "	49 68
29	11	John MacFarlane, " "	98 24
29	12	S. E. Cassino & Co., " "	28 00
29	13	John L. Atwater, " "	6 00
29	14	Publishers Weekly, " "	12 50
Dec. 29	15	Ypsilanti Commercial Printing Co., on account of library	8 55
29	16	Ypsilanti Commercial Printing Co., on account of library	21 40
29	17	John MacFarlane, on account of library	145 44
29	18	Library Bureau, " "	4 76
29	19	John W. Wise, " "	4 50
29	20	John MacFarlane, " "	20 68
29	21	John MacFarlane, " "	60 58
29	22	Ypsilanti Commercial Printing Co., on account of library	2 00
29	23	Frank Smith, on account of library	90 40
Feb. 16	24	Mrs. D. W. Le Valley, on account of library	3 50

1885.	No. of Voucher.	To Whom Paid.			Amount.
Feb. 16	25	John MacFarlane,	"	"	$360 00
16	26	John MacFarlane,	"	"	29 08
16	27	Frank Smith,	"	"	85 20
16	28	S. E. Cassino & Co.,	"	"	7 00
16	29	S. E. Cassino & Co.,	"	"	7 00
16	30	John L. Atwater,	"	"	12 00
16	31	Q. P. Index,	"	"	1 25
Mar. 11	32	Richard Haigh,	"	"	2 00
Apr. 21	33	F. A. Barbour,	"	"	63 24
21	34	A. Lodeman,	"	"	2 00
29	35	Charles Scribner's Sons,	"	"	26 00
29	36	John MacFarlane,	"	"	43 99
29	37	John MacFarlane,	"	"	234 30
29	38	R. R. Bowker,	"	"	2 00
29	39	Ypsilanti Com'l Pr't' Com.,	"	"	28 85
June 29	40	Q. P. Index,	"	"	1 00
29	41	Chas. Scriner's Sons,	"	"	12 00
29	42	John MacFarlane	"	"	38 20
29	43	John W. Wise,	"	"	4 50
29	44	W. W. Vanarsdale,	"	"	4 50
29	45	F. W. Christern,	"	"	7 98
29	46	R. R. Bowker,	"	"	3 12
29	47	Florence Goodison,	"	"	2 50
29	48	Ypsilanti Com'l Pr't'g Co.,	"	"	17 55
29	49	John MacFarlane,	"	"	4 25
29	50	F. W. Christern,	"	"	21 88
Sept. 30	51	D. Appleton & Co.,	"	"	6 00
30	52	Frank Smith,	"	"	6 50
30	53	D. Appleton & Co.,	"	"	6 00
30	54	Benj. L. D'Ooge,	"	"	2 50
30	55	F. H. Pease,	"	"	4 00
30	56	F. A. Barbour,	"	"	9 80
30	57	Lucy A. Osband,	"	"	2 25
		Disbursements on account of special funds for year ending Sept. 30, 1886			$1,931 22

1885.	DEBIT.	
Sept. 30	Balance from old account	$663 08
1886.		
Sept. 30	Disbursements on account of special funds for year ending Sept. 30, 1886	1,931 22
30	Balance to new account	405 70
		$3,000 00

1885.	CREDIT.	
Oct. 31	Transferred from current expense fund	$1,500 00
1886.		
Jan. 31	Transferred from current expense fund	1,500 00
		$3,000 00

EDGAR REXFORD,
Treasurer.

Ypsilanti, Sept. 30, 1886.

STATE AGRICULTURAL COLLEGE.

HON. THEODORE NELSON,

Superintendent of Public Instruction:

SIR—I herewith submit my report of the State Agricultural College for the collegiate year ending August 12, 1886, as required by section 413 of Howell's statutes.

The year has been marked by a greater attendance than ever before, the totals for the different years thus far being as follows:

Year.	Number.	Year.	Number.	Year.	Number.
1886	296	1876	164	1866	57+51*
1885	173	1875	156	1865	43+45*
1884	171	1874	121	1864	29+33*
1883	185	1873	143	1863	34+26*
1882	216	1872	131	1862	44+25*
1881	221	1871	141	1861	37+29*
1880	264	1870	93+36*	1860	49
1879	232	1869	79	1859	96
1878	239	1868	82	1858	140
1877	154	1867	73+24*	1857	123

*Preparatory students.

Of the total number of students there were

In the agricultural course	233
In the mechanical course	28
In special studies	35
	296

They were divided into classes as follows:

Post graduates	11
Seniors	33
Juniors	25
Sophomores	59
Freshmen	144
Specials	24

There are employed sixteen Professors and Instructors. The following is a list of the Faculty and other officers:

Edwin Willits, M.A., President, Professor of Political Science, Constitutional Law, and Business Law.

Theophilus C. Abbot, LL.D., Professor of Mental Philosophy and Logic.

Robert C. Kedzie, M.A.,M.D., Professor of Chemistry, and Curator of the Chemical Laboratory.

Albert J. Cook, M.S., Professor of Zoölogy and Entomology, and Curator of the General Museum.

William J. Beal, M.S.,PH.D., Professor of Botany and Forestry, and Curator of the Botanical Museum.

Rolla C. Carpenter, M.S.,C.E., Professor of Mathematics and Civil Engineering.

Samuel Johnson, Professor of Practical Agriculture, and Superintendent of the Farm.

Elias J. MacEwan, M.A., Professor of the English Language and Literature.

E. A. A. Grange, V.S., Professor of Veterinary Science.

J. A. Lockwood, 2d Lieut., 17th U. S. Infantry, Professor of Military Science and Tactics.

Liberty H. Bailey, Jr., B.S., Professor of Horticulture and Landscape Gardening, and Superintendent of the Horticultural Department.

Lewis McLouth, M.A.,PH.D., Professor of Mechanics and Astronomy.

Henry G. Reynolds, M.S., Secretary.

Frank S. Kedzie, M.S., Assistant Professor of Chemistry.

Louis G. Carpenter, M.S., Assistant Professor of Mathematics.

Henry R. Pattengill, Assistant Professor of English.

Joseph B. Cotton, B.S., Instructor in Mathematics.

Mrs. Mary J. C. Merrell, B.S., Librarian.

Henry W. Baird, B.S., Assistant Secretary.

Hiram T. French, B.S., Foreman of the Farm.

Louis Knapper, Florist.

Charles S. Crandall, B.S., Foreman of the Horticultural Department.

James Wiseman, Engineer and Foreman of Iron Shops.

H. Campbell, Carpenter and Foreman of Wood Shops.

There are two courses of study pursued at this college—the agricultural and the mechanical. Both courses are purely scientific and different from each other, principally in the studies and work pursued in each; relating to agriculture with work upon the farm in one, and a predominance of mathematics and mechanics with shop work in the other. The following statements give the courses of study in detail, and the text books now used:

AGRICULTURAL COURSE.

Freshman Year.

AUTUMN TERM.—*Algebra*—Thomson and Quinby. *Ancient History*—Swinton's Outlines. *English*—Whitney's Essentials. *Elocution*—Monroe.

SPRING TERM.—*Geometry*—Wentworth. *Drawing*—Free Hand, Lectures. *Agriculture*—Lectures. *Declamations.*

SUMMER TERM.—*Geometry* completed. *Botany*—Gray's Lessons, Wood's Botanist and Florist. *Rhetoric*—D. J. Hill. *Essays.*

Sophomore Year.

AUTUMN TERM.—*Algebra* completed. *Trigonometry*, half term; *Moral Philosophy*, half term. *Botany*, half term. *Agriculture*, half term—Lectures. *Declamations and Essays.*

SPRING TERM.—*Trigonometry* completed, half term—Bellows. *Surveying*, half term, Bellows. *Botany*—Laboratory work, two hours daily. *Rhetoric*—A. S. Hill. *Essays.*

SUMMER TERM.—*Mechanics*—Atkinson's Ganot. *Elementary Chemistry*—Lectures, Houston. *Agriculture*, half term—Lectures. *Landscape Gardening*, half term—Lectures. *Original Speeches.*

Junior Year.

AUTUMN TERM.—*Mechanics* completed, half term. *Anatomy*, half term—Lectures, Martin. *Horticulture*—Lectures. *Organic Chemistry*—Lectures. *Blowpipe and Volumetric Analysis*—Laboratory Practice. *Essays and Public Speeches.*

SPRING TERM.—*Human and Comparative Physiology*—Lectures, Martin. Laboratory work three hours daily for two weeks. *Analytical Chemistry*—Laboratory work, three hours daily, Kedzie's Hand-book. *Essays and Public Speeches.*

SUMMER TERM.—*Entomology*—Lectures, Packard, Cook's Apiary. Laboratory practice three hours a week. *English Literature*—Lectures, Stafford A. Brooke, Select Texts. *Agricultural Chemistry*—Lectures. *Essays and Public Speeches.*

Senior Year.[1]

AUTUMN TERM.—*Psychology*—Bascom. *Chemical Physics*—Atkinson's Ganot. *Zoölogy*—Lectures. *Agricultural Engineering*—Lectures. *Veterinary*—Lectures. *Critical Essays and Public Speeches.*

SPRING TERM.—*Logic*—Jevon's Lessons, Fowler's Inductive Logic. *Meteorology*—Lectures. *Civil Engineering*, Davis' Surveying—Lectures. *Constitution of the United States*, half term—Cooley. *Political Economy*, half term—Chapin-Wayland. *Veterinary*—Lectures. *Geology*, half term—Lectures. *Horticulture*, half term—Lectures. *Essays and Public Speeches.*

SUMMER TERM.—*Quantitative Analysis*—Laboratory Practice. *Botany and Forestry*—Lectures and Laboratory Practice. *Agriculture*—Lectures. *Veterinary*—Lectures. *English Literature*, half term—Lectures, Select Texts. *Philosophy of History*, half term—Guizot. *Astronomy*—Newcomb and Holden. *Milton*, once a week.

The text-books mentioned above are those used when the several subjects were last taught, but they are liable to be changed.

COURSE IN MECHANIC ARTS.

Freshman Year.

AUTUMN TERM—*Free Hand Drawing. Algebra*—Thomson & Quimby. *English*—Whitney's Essentials. *Elocution*—Monroe. *Shop Practice.*

SPRING TERM—*Mechanical Drawing*—Morse. *Elementary Physics*—Trowbridge. *Geometry*—Wentworth. *Declamation. Shop Practice.*

SUMMER TERM—*Geometry*, completed. *Mechanical Drawing*—Morse. *Elementary Physics. Essays. Shop Practice.*

[1] All studies elective in this year.

Sophomore Year.

FALL TERM—*Mechanical Drawing*—Morse. *Algebra. Botany*—Lectures and laboratory practice. *Elementary Physics* completed, half term. *Trigonometry*—Bellows, half term. *Shop Practice.*

SPRING TERM—*Mechanical Drawing. Book-keeping and Business Law. Trigonometry* completed half term. *Surveying*—Bellows, half term. *Experimental Mechanics*—Ball. *Shop Practice.*

SUMMER TERM—*Mechanical Drawing. Rhetoric*—D. J. Hill. *Elementary Chemistry*—Houston, lectures. *Experimental Mechanics* completed. *Shop Practice.*

Junior Year.

FALL TERM—*Chemistry*, blowpipe (11 A. M.). *Mechanical Drawing. Analytical Geometry. French* or *German. Shop Practice.*

SPRING TERM—*Mechanical Drawing. Analytical Geometry*, half term, completed. *Calculus*, half term. *French* or *German. Analytical Chemistry. Shop Practice.*

SUMMER TERM—*Calculus*, completed. *Mechanical Engineering. French* or *German. Elements of Mechanism*—Goodeve. *Shop Practice.*

Senior Year.

FALL TERM—*Mechanical Drawing. Engineeriny* (steam engine and boiler). *Elements of Mechanism*, half term, completed. *Chemical Physics*—Ganot. *Analytical Mechanics*, half term.

SPRING TERM—*Lithological Geology*, half term. *Analytical Mechanics*, half term, completed. *U. S. Constitution* and *Political Science. Machine Design. Logic.*

SUMMER TERM—*Astronomy*—Newcomb & Holden. *Civil Engineering. Metallurgy English Literature.*

Our various departments are all in prosperous working order, though the great additional influx of students makes very necessary additional teaching force and more space in certain directions. The first want is most particularly felt wherever technical training is required, as in all of the operations of manual labor on the farm and garden, in the shops, apiary, etc., and in all classes of laboratory work, chemical, botanical, physiological and mechanical.

The second want applies only to the horticultural and mechanical departments, the former of which has no other quarters than the unfinished basement of the college hall and a single small barn, while the latter is crowding its present quarters, and must have more room or cease to grow.

This need of larger accommodations can only be met by the wise liberality of the State Legislature; as, by the terms of its endowment, the college is debarred from using any of its own funds for building purposes.

This endowment has already reached so productive a stage that, at the last session of the Legislature, the Board of Agriculture ventured to say that no appropriation for current expenses of the institution was needed, and the two years have passed creditably and prosperously and there is no deficiency to be made up.

Again, though with its larger needs, yet also with its gradually increasing income, the Board are intending to ask the Legislature only for money for specific purposes, and to try to fit the current expenses of the college to its own current income.

That the State of Michigan can well afford to provide this child of her be-

getting, with the completest equipment, will be understood when we see how well its "Uncle Samuel" has provided for its ultimate maintenance.

The condition of this bequest at the present time (Oct. 1, 1886) is as follows:

Agricultural College Trust Fund, from sale of lands of United States grant	$301,333 58
Balances due from purchasers " " " " " "	134,234 31
124,242.91 acres of land grant yet unsold, at $5 per acre (the minimum price at which the lands can be sold)	621,214 55
Total	$1,056,782 44

This principal sum cannot be touched, and the interest from it can only be used for maintenance, and never, in the language of the act of Congress making the grant, "be applied directly or indirectly, under any pretense whatever, to the purchase, erection, preservation or repair of any building or buildings."

It will, therefore, be readily seen that Michigan cannot afford to d› otherwise than make the best arrangements possible for the advantageous expenditure of the interest on this large sum.

The grant only becomes interest bearing as the lands are sold, so that at present the productive portion of the endowment is represented by the first and second of the above items, amounting to $435,567.87, the annual interest on which is $30,489.75.

During the twelve months since my last report the following bulletins have been issued, under the law of May 11, 1885:

No. 6. Sept. 1, 1885, by E. A. A. Grange, Prof. of Veterinary Science, on Abortion in Cattle.

No. 7. Oct. 1, 1885, by L. H. Bailey, jr., Prof. of Horticulture, etc., Notes on Fruits, etc.

No. 8 Nov. 1, 1885, by A. J. Cook, Prof. of Entomology, etc., on Wintering Bees.

No. 9. Dec. 1, 1885, by Dr. R. C. Kedzie, Prof. of Chemistry, on Marl.

No. 10. Feb. 1, 1886, by E. A. A. Grange, on a Disease among Horses.

No. 11. Mar. 10, 1886, by Dr. W. J. Beal, Prof. of Botany, etc., on Lawn Making.

No. 12. Apr. 1, 1886, by L. H. Bailey, jr., on Rural Adornment.

No. 13. Apr. 10, 1886, by S. Johnson, Prof. of Agriculture, on Potato Culture.

No. 14. May 1, 1886, by A. J. Cook, on the Codling Moth and Back Louse.

No. 15. June 1, 1886, by Dr. R. C. Kedzie, on the Manurial Value of Ashes.

No. 16. July 15, 1886, by Dr. W. J. Beal, on Grasses.

Very respectully,

HENRY G. REYNOLDS,
Sec. Mich. State Board of Agriculture.

AGRICULTURAL COLLEGE,
August 20, 1886.

REFORM SCHOOL.

SUPERINTENDENT'S REPORT. *

To the Board of Control of the Reform School:

GENTLEMEN—I have the honor to submit my report as Superintendent of the Reform School for the biennial period ending September 30, 1886.

In an institution like ours, old enough so that the general character of its work is pretty thoroughly established, there seems to be but little that is new to present in a Superintendent's report. But as each succeeding report goes into the hands of many who have not hitherto been familiar with the working of the institution, it is proper that we should present, somewhat in detail, a statement of our aims, the means with which we have endeavored to accomplish these aims and the measure of success which has crowned our efforts.

The Reform School of Michigan, which was established thirty years ago as a "House of Correction for Juvenile Offenders," has long since outgrown the sphere of effort for which it was originally inaugurated—that of a boys' prison—and is now expected to take such boys as are tending towards lives of crime, and so discipline and instruct them that they may be returned to society morally and educationally equipped for the battle of life. The law provides for sending to this institution not only boys who have been convicted of some offense punishable by fine or imprisonment, but also, such as by their failure to take advantage of the opportunities for obtaining an education in the public schools, indicate that they are in danger of falling into idle and vicious habits.

The State of Michigan believes that a common school education is a prerequisite to good citizenship, and that the boy who will not accept an education as a free gift should be compelled to receive it in the Reform School. It is frequently asked if, in the institution, we separate truants from those who are sent to us as criminals, and if there is not danger that while these truants are being improved intellectually they will be injured morally. We can answer this and several other inquiries which are often made as to the classification of our inmates, by stating that we make no distinction whatever based upon the character of a boy at the time when he comes under our care. It is our aim to have the moral atmosphere of every part of our institution such that it will stimulate toward well-doing every one who breathes it. We

* The annual report to the Superintendent of Public Instruction required by section 2, act No. 206, laws of 1881, not having been received, the report here given has been compiled in this office from the last biennial report of the Superintendent to the Board of Control.
SUPERINTENDENT OF PUBLIC INSTRUCTION.

plan at all times to keep the average standard of morality among our boys sufficiently high so that a good boy will not be injured, and a bad boy will surely be benefited by contact with those about him. When a boy has determined to become a good boy, and is making an honest effort in that direction he at once becomes an active and helpful agency in the work of bringing his associates into a condition of right thinking and right acting. With a large corps of helpers composed of those of our inmates who have started in the right direction, and who are still remaining with us on probation, proving by their persistence in well doing that they are strong enough to walk alone, we are constantly aided in the discipline of the institution and are able to have the predominant sentiment at all times toward the right. Moreover, a boy who is ambitious to "owe no man," sees in the good work he is enabled to do for other unfortunates who have been intrusted to the care of the institution, an opportunity to compensate the State to some extent for the good work previously wrought upon himself.

As for years past, our boys devote four and a half hours each day to work, and four and a half hours to study, leaving five hours for meals and recreation and ten hours for sleep.

In our school-room we attempt nothing outside of or beyond the common English branches, but do endeavor to have all that we do of a thorough and practical character. The enthusiasm of our boys in their school-room duties and their very rapid advancement in their studies indicate, not that our schools are better than others, but that enforced attention to any duty soon makes that a pleasure which was before an irksome task. The same holds true with reference to all the work of the institution in which the boys engage. Especially noticeable is this in all those industries which appear to the boys to be helplul in preparing them for gaining a livelihood after leaving us. The most willing and enthusiastic work is always noticed among those boys who are employed in the tailor shop, shoe shop, bake shop, the engine room and on the farm. I wish that we might increase our facilities in the way of educating industries, and am sure that our Legislature needs only to have its attention called to our wan ts in this direction to insure such an appropriation as will enable us to prepare for successful wage earning, many more than we are doing at present. Most of our boys upon leaving the institution are obliged at once to attempt self-support. We can materially enhance the probability of their success in this attempt and at the same time greatly lessen the probability that they will again become a source of expense to the State, by giving them such a training as will enable them to take rank as skilled laborers. As a business proposition, the State should feel that it cannot afford to allow these boys to go out from us without the ability to earn an honest living from the start.

While the past two seasons have not been as good for profitable farming as some which have preceded, we have nevertheless, raised an amount of produce which has materially assisted in the support of the institution. We have moreover greatly enhanced the value of our farm by clearing, fencing and draining, thus putting it in shape for greater profit hereafter. We have also done a large amount of necessary grading upon our grounds with our teams and the assistance of the boys, which has saved to the State an expenditure of several thousand dollars which would otherwise have been necessary.

Our farm is a constant and great assistance to the real work of the institution in preparing a large number of boys each year to accept homes with farmers to the mutual advantage of both parties. As most of our boys come from large towns, and have an established taste for town life, this work of placing

boys with farmers will always be somewhat limited. There are, however, very many of our inmates who have a taste for this work, and for whom we can do nothing better than to help them to homes in the country.

It is a matter of gratification to me that I can look over the two years that have just closed and believe that the work of the school for those committed to its care has been reasonably productive of good results. Notwithstanding the fact that some who have gone out from our care have not shown by their subsequent career that we were successful in permanently turning them from their downward course, it still remains true that the great majority of those released from this institution have, by their honesty and industry, shown that they were anxious and determined to become good citizens. Through correspondence with the boys and from reports made by county agents, we learn of a very large number who are honoring themselves, and proving the wisdom of the effort that is being made in behalf of the "juvenile offenders" of the State.

There is no phase of the work we have in hand in which I have taken a livelier interest than that which pertains to the returning of our inmates to the outside world with the least possible of habits of thinking and acting which are purely institutional; but rather with such habits as will the most surely serve to fortify them against temptations to wrong-doing in after life, and fit them for grappling successfully with its stern realities.

While in any large institution it is necessary to have much of system in its management, and the individual, in many particulars, must be merged into and become an unnoticed part of the grand whole, it is, I believe, important to the individual that this merging process be reduced to the minimum, and that strong counter-influences be established, which shall bring out and strengthen the individuality of each boy. We have been making a persistent effort in this direction with results which have, I am sure, convinced all who have been conversant with our work, that much more of individual liberty could be given, and of individual responsibility demanded than had formerly been supposed feasible or possible even.

In furtherance of this idea we have endeavored to remove from our schemes for restraint, discipline and education, all those which differ from what are found in every good home, and to introduce just such as the good home finds necessary and adequate.

It is a fact well known to every person who has been engaged in reformatory work for any length of time, that it is seldom that a child becomes an inmate of such an institution who has had good home training. It is, I believe, equally true that the great majority of those who come under our care will be saved to themselves and to the State, if they can have good home influences brought to bear upon them. Toward this end we have been aiming. The most important departure we have made from the established customs of juvenile reformatories has been in abolishing entirely everything in the way of grades and honors in our school, and in their stead inculcating the idea that good conduct should be aimed at because it is right, and that good scholarship and faithfulness and skill in work are desirable, because they are necessary to an honorable and happy career in after life. The system of grades and honors may and probably does show more immediate results, but such as are, I am sure, but temporary and most unsatisfactory in their character. Good conduct that is bought with a price, carries with it no assurance that it will be continued, but rather argues that wrong-doing is likely to follow a withdrawal of the incentive which determined the action. We cannot, in the institution, any more than in the home,

afford to delude a boy into thinking that he is worthy of confidence and respect, on account of any good deed he has performed from other than a noble motive. It was with much hesitancy that we decided to abandon the system of grades which prevailed for years in this institution, and which is, in some form, in vogue in nearly every similar institution in the country; but having throughly tested what we believe to be the better way, we are fully convinced that very much was gained and very little lost by the change. In this, as in every other plan for the betterment of our work, I have received the hearty and intelligent coöperation of the very best corps of officers and employès which can be found in any reformatory in the United States.

We are under great obligations to the many friends of the institution for the pleasant reminders, which come to us almost daily, of the deep interest which is felt in the success of our work. Governor Alger, with that generous bounty which has endeared him to the inmates of all our State institutions, gave to each of our boys, last Christmas, a pair of mittens, beside other valuable presents.

Not less appreciated are the words of encouragement and cheer which are given to our inmates by those who visit the institution. It is a most powerful stimulus to good conduct, on the part of any boy, for him to feel that, in the opinion of those whose judgment he respects, there is no question as to his ability to make an honorable and worthy man.

The following is a list of newspapers which have been furnished to the school gratuitously, and which are highly appreciated by our boys, who are always eager for home news:

Owosso Weekly Press; Kalamazoo Weekly Telegraph; The Union Index, Gettysburg, D. T.; Pentwater News; Hillsdale Standard; The Weekly Courier, Jackson; Lansing Sentinel; Lansing Journal; State Republican; Saginaw Morning Herald; Ludington Record; Rockford Register; Milford Times; Ingham County Democrat, Mason; The Center, Detroit; Howard Times, Sockanosset, R. I.; Grange Visitor, Schoolcraft; The Summary, Elmira, N. Y.; The Church Helper; Cheboygan Tribune; Charlevoix Journal; Coldwater Republican; Bay City Tribune; Albion Recorder; Alpena Pioneer; City and Country, Columbus, Ohio.

With grateful acknowledgment of the wise counsels and constant support which I have always received from you, gentlemen of the Board of Control, this report is

Respectfully submitted,

C. A. GOWER,
Superintendent.

STATE PUBLIC SCHOOL FOR DEPENDENT CHILDREN.

REPORT OF THE BOARD OF CONTROL.*

TWELVE YEARS OF CHILD-SAVING WORK.

This is no longer an experimental institution, as it may have been in 1874 when Michigan was a pioneer in the inauguration of a new system for the care and education of dependent, not criminal, children. There have been 2,138 dependent children cared for here, the larger part of whom have gone into good family homes. Those who are no longer wards of the Board are the 150 adopted by proceedings in the probate courts, 253 returned to their counties —generally for mental or chronic physical disability, 128 have become of age, 28 girls have married, 72 have died in homes or at the school, 162 have been declared self-supporting, 233 have been returned to their parents who became able to support them, and 317 are either in the school or are in homes on trial. The present wards of the school are 1,112, of which 795 are subject to visitation in homes. For over twelve years these young dependent children have been coming from the county poor-houses or from broken homes into this school. While here they have been kindly cared for without over-indulgence. They have been educated here in the common English branches as others are in the district schools. They have been taught how to labor, so far as their ages and conditions permitted. And when they were fitted for a good home they have been placed there by indenture or adoption. In these homes the continuation of their education and kindly treatment as members of the family has been secured. The State has by visits and correspondence kept up a careful supervision of its wards and protected their interests as well as parents might do. Many of these children have already become self-supporting, respectable citizens. Those who turn out well will compare favorably with the same number in our common schools. These results are not reached without effort. Many of these children are in a fit condition physically and mentally to place in homes the day they enter here. But there are many others who have never before been under the influences of a true home. Their life has been on the streets, in tenement houses of the lowest order and in resorts where virtue and honor were unknown. They have only known cruelty, hunger, cold and wretchedness. The law of kindness was unknown to them, and when they entered this school they learned for the first time

*The annual report to the Superintendent of Public Instruction, required by section 2, Act No. 206 Laws of 1881, not having been received the report here given has been compiled in this office from the last biennial report of the Board of Control to the Governor.—SUPT. PUB. INST'N.

that men and women can be pure and temperate and can speak without foul jest or oath. They are children who have been rescued from nurseries of crime and placed where they may become good citizens. For many of them there must be and is patient, loving and continued labor. Here in this home school all these classes are gathered where they are surrounded by moral and mental influences which elevate them to a higher level where they may become as strong and pure men and women as their more fortunate brothers and sisters. To save these children from chronic pauperism and possible crime, for its own safety as well as for humanity, the State is doing this work. As Gov. Bagley said, "What a noble work for the State to engage in, reaching out a hand not heavy and restraining, clothed in iron mail, but gentle and with a tender clasp folding in its arms these innocents; taking the place of their fathers and mothers and holding them out to its citizens as their brothers and sisters."

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PRESENT AND FUTURE SIZE OF THE SCHOOL.

In 1883 the legislature authorized the construction of a new hospital, and the conversion of the building then used for that purpose into a cottage for children, by which the capacity was increased from 300 to 330. In his report for 1882, the superintendent said: "This room and much more is greatly needed for the accommodation of all the children, for whose admission applications have urgently been made. In fact, three more cottages would not more than supply the pressing demand." For the previous five years the average number in the school, including those on trial, had been 309. The institution was overcrowded, and the pressure was great for admissions. The average yearly indentures for five years have been 115, including re-indentures, the actual gain being about 100 yearly. In the main this success was fairly satisfactory to the Board in the absence of demonstration that better work could be done. But the ideal of the law, in the opinion of the Board had not been reached. That was that the school should care for all the dependent children without increase of buildings. So, in 1883 and 1884, a special effort was made to determine whether it was not possible to provide for all admissible dependent children without increasing the capacity of the school. It was evident that unless more than 100 per year could be received and indentured that many must remain in the counties as public charges. New zeal and confidence increased the indentures, in 1884, to 216, and the numbers received to 290, nearly double the number received in any previous year. The counties were soon relieved of all dependent children. In 1884 notice was given that, thereafter, all would be received. That notice has not been recalled and probably will not be, though our population rapidly increases, as well as the number of children received. Further, in 1885, the Board requested authority to receive children two years of age—a class not before admitted. The amendment to the law was made and still there was room. In the last two years 466 have been received, and 407 indentured. This late experience has demonstrated that the institution can meet all demands upon it, and probably will for many years. The work of the State Agent in the school, and visiting the children in families, has contributed much to this result. Under the improved conditions the Board was confident that the time had come when, with safety and profit, there might be a reörganization of the work of the school, including a more suitable adaptation of the buildings for the purposes of the institution. The time had come, in the

opinion of the Board, when more work could be done, and at less expense, and when the capacity of the institution could, with profit, be reduced from 330 to 270. These are some of the reasons for the reädjustments and permanent improvements mentioned below.

THE DOUBLE COTTAGE NOW THE SCHOOL HOUSE.

By reason of the more rapid placing in families the number at times in the school was often below 250, and once passed below 200. The large cottage had room for sixty and was occupied by a few girls. As a cottage it was expensive to heat and had been abandoned in the winter of 1885, the girls being transferred to the next cottage, which they have since then occupied. There appeared to be no farther use for this building for cottage purposes. But there had always been a serious need for proper school accommodations. Of the five school rooms in the east wing of the main building only one was at all suited for the purpose. It would cost $10,000 to $15,000 to erect a suitable school building, and the board preferred to avoid requesting so large an appropriation. But here was this large building, which with nominal changes could be made into an admirable school building. After full consideration the building was set apartfor school purposes. The four large rooms, two in each story, were well lighted, heated and finely ventilated. The large south room in the first story was used for the kindergarten, which has been one of the most attractive features of the school. This building has now been in use for over a year, and the wisdom of the enterprise has been fully demonstrated. With the addition in the rear providing two more school rooms to be used when the institution is full, will complete this school building so that it will be adequate for all the future demands upon it.

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An examination, in person, by those to whom this report is addressed, of the the general and financial management of this institution, is respectfully solicited. The plan and operations of the school can be far better shown here than in a printed report. The mission of the school is to save young children from associations that direct them in the way of chronic poverty or crime. The Board is confident that the trust imposed is being executed according to the letter and spirit of the law, and for the best interests of the children. The records now give the history of over two thousand little children who have lost their homes by the sins and misfortunes of their parents, and who have been brought here to be educated and then placed in family homes. Many who have gone through this school are already self-supporting and respected citizens. The great majority of the rest will also, in time, be worthy citizens of the noble State that aided them in their hour of need. Considering the past work and the possibilities of this temporary educational home for dependent children, it is not strange that one so well acquainted with the school, and who did so much towards organizing it, as Governor Bagley, should say—"To my mind the grandest work the State has ever done is the State Public School at Coldwater."

The Board bespeaks for these wards of the State that judicious aid that has never been withheld, and for the institution a continuation of the cordial sentiment of approval that has always been a source of strength and encouragement.

Respectfully submitted,

ISAAC A. FANCHER,
R. E. CASE,
C. D. RANDALL,
Board of Control.

C. D. RANDALL, *Secretary.*

A.

SUPERINTENDENT'S REPORT.

To the Hon. Board of Control of the State Public School:

GENTLEMEN—I submit herewith, for your consideration, the Twelfth Annual Report of the State Public School, covering the biennial period ending September 30, 1886:

* * * * * * * * *, * * * * * * * * *

TABLE 8.—*Present Age of the School.*

Number between 2 and 3	4
" " 3 and 4	4
" " 4 and 5	12
" " 5 and 6	16
" " 6 and 7	33
" " 7 and 8	34
" " 8 and 9	42
" " 9 and 10	32
" " 10 and 11	23
" " 11 and 12	16
" " 12 and 13	10
" " 13 and 14	2
" " 14 and 15	4
" " 15 and 16	2
Total	234
Average age	7 4-5

TABLE 9.—*Present Standing of School.*

Number in Kindergarten	53
" reading in Chart	42
" reading in First Reader	39
" reading in Second Reader	47
" reading in Third Reader	30
" able to write letters	60
" able to add practical examples	45
" able to subtract practical examples	45
" able to multiply practical examples	45
" able to divide practical examples	45.
" knowing multiplication table	17
" studying Swinton's Introductory Geography	17
" studying Milnes' Primary Arithmetic	13
" studying Milnes' Elementary Arithmetic	17
" studying Oral Geography	104

TABLE 10.—*Course of Study.*

KINDERGARTEN.

Study of colors and form.	Occupations for manual dexterity, neatness, observation, comparison.
Learning numbers, counting, etc.	
Games on circle to illustrate the above.	

FIRST GRADE.

Chart and First Reader.	Making figures.
Singing.	Counting to one hundred.
Geography of the school room.	Drawing on slate.
Addition.	Spelling.

SECOND GRADE.

First and Second Readers.	Writing on slate.
Spelling.	Studying of numbers to ten—four operations to each number.
Singing.	

THIRD GRADE.

Appleton's Second Reader.	Milnes' Elementary Arithmetic.
Appleton's Third Reader.	Milnes' Primary Arithmetic.
Swinton's Introductory Geography.	Writing.
Spelling all words in Reader.	

RESULTS OF PLACING OUT.

It would not be sufficient to simply place a child in a home every working day of the year, if nothing were done to see that the child received such training as is accorded children in honorable families where proper training is given, and no pains has been spared in this most important part of our work.

Never before has it been practicable to do this part of our work as it has been done during the past year. The children are encouraged if discouraged, admonished if wayward, and counseled to be patient, honest and truthful. Those who are becoming of age are advised regarding their future plans. The money due on contract is collected if necessary, and guardians are learning that a contract with this institution means all it contains. If children are not being sent to school it is at once investigated, church and Sunday school attendance is being insisted upon, and in general a complete and thorough conformity to the spirit as well as the letter of the indenture contract is being urged.

This visiting is done at unexpected times by a man who was personally acquainted with a great many of the children before they went into homes, and they are more ready to tell all their troubles to him than they would be to an utter stranger.

Children are removed from homes promptly where it is deemed for the child's best good, whether such children are with their own relatives or among entire strangers. Guardians guilty of cruelty have been prosecuted and fined. Children who have left good homes without cause have been returned to their homes, so that such absconding is growing less frequent. Children and guardians alike are recognizing their obligations to the parent the State has provided. So thoroughly has this work been done that with this report we are enabled to show the condition and whereabouts of all children but eight.

For items of interest regarding children in families and character of homes you are respectfully referred to the report of the State Agent, which is herewith submitted. From his report it will be seen that at least 92 per cent. of all children placed out are no longer public burdens and are likely to become honest, self-supporting citizens.

It is also worthy of notice that the homes in which these children are placed have some purpose in view other than the value of the child to them in work, but desire to give each child such educational advantages as will place him at no disadvantage with his more fortunate companions in homes with their own real parents; as the following table of attendance at school during the past year of those out of the institution in homes shows:

Number who have attended school 10 months	33
Number who have attended school 9 months	32
Number who have attended school 8 months	34
Number who have attended school 7 months	37
Number who have attended school 6 months	60
Number who have attended school 5 months	69
Number who have attended school 4 months	243
Number who have attended school 3 months	87
Number who have attended school 2 months	36
Number who have attended school 1 month	8
Number who have not attended school	156
Total	795

In the early history of the institution only three months' attendance at school was required; later this was changed to four months, which is the present requirement.

From the above table it will be seen that 595 of the children on indenture have attended school the full amount of time required by their contract, or more than that length of time. One-third of all children out have attended school five months or more.

Of the 164 who have attended one month or not at all, 83 were out on trial and had not yet begun attendance at school, 8 have not been heard from, 26 are under school age, 27 are past 18 years of age and have dropped out of school, 4 have been out of school on account of sickness, 3 because they did not wish to go, 10 because they did not go into their homes from the institution until during the past summer and are waiting for the winter term to begin. No reason is given in case of the remaining three, but has been asked for. Deducting from the whole number those who cannot reasonably be expected to be in school and the average number of months for each child is five.

THE SCHOOLS.

There is no more important duty devolving upon this institution than to give the children the best educational advantages. While all the departments are purely primary, it is the place of all places in the school where the best teachers should be employed and the best methods inaugurated. The disadvantages attending the teacher's work, in a school like ours, have been so frequently mentioned as not to need repetition here. They are acknowledged by all who are familiar with the work. This being so, it is important to introduce such improved system as will assist in securing the greatest possible good to the children. As suggested in my last report, a kindergarten department was to be started, and the wisdom of this departure in the school work has already been shown. It has been a most useful adjunct to the schools, and its results have been better than I even dared to hope. It has done much, by interesting mechanical work, to enliven dormant powers, and to bring into activity mental resources of children who were considered of doubtful ability. It has thus, possibly, saved from a poor-house life one or two children who, without this awakening process, would have been probably considered feeble-minded. While it brightens and awakens sleeping intellects, it does

much for the already bright ones. It furnishes pleasing occupations for willing fingers and saves them from getting into mischief. It teaches geometrical forms, color, qualities of objects, number, and, by easy steps, trains to observation, comparison and invention. Its moral training cannot be over-estimated. At a time in life when easily influenced, impressions for good are made which will be lasting. Honesty, politeness, courtesy, and graceful movements are taught in such a way as to develop the true lady and gentleman. These little waifs, many of whom are old beyond their years for lack of anything to brighten life, are made happy beyond description for four hours each day. With their action songs, marching, working with pretty colors, making something with their own fingers, talking to each other almost constantly, the time of the session passes before they are ready to go home. If no other reason existed to justify the establishment of this department, to my mind that would be sufficient.

The other departments are doing good work, notwithstanding the disadvantages under which teachers have to labor. The schools are better equipped than ever before with modern appliances for school work. The dark, illy-ventilated rooms in the main building have given place to light, airy, well ventilated rooms, in a building used for no other purpose.

In future the schools will be closed for a regular vacation during July and August; so that our children may look forward to school closing and beginning as do all other children in the public schools.

* * * * * * * *

Respectfully submitted,

JOHN N. FOSTER,
Superintendent.

September 30, 1886.

STATE INDUSTRIAL HOME FOR GIRLS.

REPORT OF BOARD OF CONTROL.*

To His Excellency the Governor, the Secretary of State, and the Honorable Members of the Legislature of the State of Michigan:

The Board of Control hereby submits for your consideration its fourth biennial report, being for the fiscal years ending, respectively September 30, 1885, and September 30, 1886, including the reports of the Treasurer, Superintendent and Physician.

The average number of girls received annually since the opening of the institution has been 62. The average number leaving by discharge, death, etc., 16. Provision is made in our present buildings for 192 inmates, but we have already been compelled to crowd in more than that number, although such crowding is very detrimental to the efficiency of our work. The cottages ought not to be filled to their utmost capacity if the best work is to be done. It is impossible to grade the girls properly when this is the case. Sometimes one cottage and then another requires depletion in order to place girls in the grade to which their conduct entitles them; but obviously, this cannot be done when the advance cottage is already full.

In view of this showing, it seems to us absolutely necessary, if the institution is to be successfully maintained, that provision should be made by this Legislature for increased accommodations; for it must be borne in mind that at least a year must elapse after an appropriation is made for an additional building before it can be ready for occupancy. Should such an appropriation be made, we trust it will be for a small cottage similar to those first erected, and designed for the accommodation of not more than thirty-four inmates.

We expressed very fully in the last report our views of the comparative value for reformatory purposes of large and small cottages, and it is perhaps unnecessary to go over the same ground again. Suffice it to say, that experience has most decidedly confirmed us in the opinions then expressed. We find the large building, erected as an experiment, and then just about being opened, no more economical, much more difficult to manage properly, and less satisfactory in every way than the smaller ones. The home feeling upon which we rely so much in the work of reformation is in a great measure lost when so large a number are congregated together, and the girls, instead of

* The annual report of the Superintendent of Public Instruction, required by section 2, act No. 206, laws of 1881, not having been received, the report here given has been compiled in this office from the last biennial report of the Board of Control to the Governor.—*Supt. Pub Instr.*

having each a sense of being the object of individual interest and care, become a crowd too large to have their interests considered separately.

The Industral Home for Girls is no longer an experiment. It has demonstrated its ability to accomplish the results hoped for in its establishment to quite as large an extent as could reasonably have been anticipated. We believe it has become one of the most valuable and successful of the charitable institutions in the State, and should be cheerfully maintained and enlarged as its necessities require.

Our plan of training girls in all sorts of domestic work has proved successful. We refer to the Superintendent's report for particulars on this point.

It will be seen from the Physician's report that the health of the girls has from the opening of the Home, been remarkably good; a fact which we believe to be largely due to the strict sanitary regulations insisted upon and enforced.

The working of the Truant Act, which allows girls to be sent to the institution, to be discharged when 16 years of age, has proved very detrimental, and works an apparent injustice to other inmates of the Home. Three girls have been sent here under its provisions, whose terms of detention by the law will be but for a single year. Their records and characters are bad, and their influence immoral. It is demoralizing to have these girls discharged while many better ones are retained as unfit for an honorable discharge. We urgently request that all girls hereafter sent to this school be sentenced as required in the original act establishing it.

Understanding that application will be made to the Legislature for the establishment of a prison for women, and an asylum for feeble-minded children, we cordially recommend both measures to favorable consideration. Our experience has furnished frequent evidence of their necessity. We are convinced that in many cases girls are committed to our care who are above the prescribed age for reception, and they occupy places which should be reserved for younger and more hopeful subjects of reformatory effort. Others are sent here who are scarcely capable of judging between right and wrong, who are not in any sense proper subjects for our work, and could be much better cared for in an institution especially designed for that class of unfortunates.

Very respectfully,

ARTHURETTA S. FULLER,
ELIZA S. STEBBINS,
MARY E. COOLEY,
WILLIAM CORBIN,
GEORGE SPALDING.

A.

SUPERINTENDENT'S REPORT.

To the Board of Control of the State Industrial Howe for Girls:

LADIES AND GENTLEMEN: The following is respectfully submitted as the Report of the Superintendent for the years ending September 30, 1885, and September 30, 1886:

TABLE I.—*Number of Girls Received.*

Number Received and Total Number now in Home.	No.
Number received before Sept. 30, 1884	205
Number received from Sept. 30, 1884, to Sept. 30, 1885	61
Number received from Sept. 30, 1885, to Sept. 30, 1886	64
Whole number received since opening	330
Whole number now in the home	187

By using the hospitals in the different cottages we can furnish rooms for two hundred girls. Our present number is one hundred and eighty-seven, as will be seen in the above table.

At present date our girls are placed as follows:

TABLE II.—*Manner of Dismissal.*

Number contracted for service but still under control of the Home	54
" contracted to friends	8
" returned to county as unfit subjects	13
" who have been discharged at expiration of time	3
" " " " " for good behavior	26
" " " " " various reasons	35
" " " died	4
" in the Home Sept. 30, 1886	187
Whole number received	330
Average number belonging from Sept. 30, 1884, to Sept. 30, 1885	163
Whole " " " " 30, 1884, " " 30, 1885	236
Average " " " " 30, 1885, " " 30, 1886	184
Whole " " " " 30, 1886	258

Average age at entering, 14 years.

At the date of this report the girls were graded as follows:

In Croswell cottage, or lowest grade	32
In Clark cottage, or second grade	33
In Central cottage, or third grade	57
In Gillespie cottage, or fourth grade	35
In Honor cottage, or highest grade	30
	187

The girls have done the work of the several families, made and repaired all the garments, have done the oiling and floor painting; have picked over five hundred and forty-four bushels of beans; transplanted one hundred and nineteen thousand four hundred and sixty tomato plants, picked two thousand one hundred and sixty-eight quarts of berries; have planted potatoes and corn; have done considerable weeding; taken almost the entire care of fifteen acres of lawn.

All work is done under the supervision of an officer.

The girls received seventeen premiums at the Lenawee Co. Fair, on bread, canned fruit, fancy work, hand and machine knitting.

TABLE XI.--*Course of Study.*

First Grade.	Second Grade.	Third Grade.
Cards. Exercises in— Drawing. Writing. Reading. Spelling. Numbers.	Appleton's First and Second Readers. Supplementary Readers. Oral work in— Geography. Numbers. Drawing. Writing. Spelling.	Appleton's Third Reader. Supplementary Reader. Primary Arithmetic. Harper's Primary Geography. Drawing. Writing. Spelling.

Fourth Grade.	Fifth Grade.
Fourth Reader. Robinson's Arithmetic. Harper's Common School Geography. Hooker's Book of Nature. Household Economy. Writing. Spelling.	Fourth Reader, finished. Robinson's Arithmetic. Harper's Common School Geography. Swinton's Language Lessons. Writing. Spelling.

Sixth Grade.	Seventh Grade and Extra Studies.
Fifth Reader. Robinson's Arithmetic. Harper's Common School Geography. Swinton's Language Lessons. Writing. Spelling.	Fifth Reader. Language Work—Composition. Robinson's Arithmetic, completed. Physiology. U. S. History. Writing. Spelling.

The girls of Croswell cottage are separated from the others in their school work and form an unclassified department.

The schools have been under the instruction of earnest, conscientious teachers, and the progress of the pupils in their studies has been very satisfactory.

Several entertainments have been given by the various grades in the past two years.

Memorial days of Longfellow, and John B. Gough were observed by the advanced grades.

The International S. S. Lessons are taught in each family, Saturday evening, by the cottage manager.

Sunday morning all the girls are assembled in chapel, when the lesson is reviewed, general questions asked and answered.

The girls show great interest in the study of the Bible and Sabbath instruction.

By a recent arrangement, Catholic girls receive religious instruction from the priests and sisters.

I am very grateful to the clergymen of the city who have so kindly assisted us in our Sunday afternoon services.

Respectfully submitted,

MARGARET SCOTT,
Superintendent.

SCHOOL FOR THE BLIND.*

SUPERINTENDENT'S REPORT.

To the Board of Control:

The following comprises the report of the Superintendent of the institution under your charge for the biennial period of 1884-6. The period covered by this report begins four years after the leasing of the property known as the Odd Fellows' Institute as a temporary location for the school, three years after the purchase of the property and permanent location of the school by the Legislature, and one year after the appropriations were made for the erection of wings to the main building and for various other improvements on the premises.

ERECTION OF BUILDING.

September 30, 1884, found the south wing and residence of superintendent completed and occupied, and work upon the brick walls of the nor h wing under way. This building was not ready for occupancy before the opening of the term in September, 1885, and even at that time much work yet remained to be done by way of finishing and furnishing parts of this building for the reception of pupils. The rooms of this building furnished the boys more commodious and comfortable quarters than those hitherto occupied by them, and the school rooms met a need of the school for more and better accommodations.

LITERARY DEPARTMENT.

At the close of the term in June, 1885, Mr. Clarence D. McLouth declined re-appointment as first teacher in this department, for the purpose of further pursuing his studies at the State Normal School at Ypsilanti. The vacancy was filled by the appointment of Mr. U. G. Race, recently a graduate of the same institution. At the same time Miss Aristine Nayes declined re-appointment as teacher in this department to accept an appointment as teacher in the schools of Fort Wayne, Indiana. Miss Emma L. Kent, of Greenville, Michigan, was appointed to fill the vacancy.

Studies in the following subjects were pursued in the school years of 1885 and 1886:

*The annual report of the Superintendent of Public Instruction, required by section 2, act No. 206, laws of 1881, not having been received, the report here given has been compiled in this office from the last biennial report of the Superintendent to the Board of Control.—*Supt. Pub. Instr.*

FIRST GRADE.

School year ending June, 1885.	School year ending June, 1886.
General Knowledge.	General Knowledge.
Algebra.	Algebra.
Grammar.	Natural Philosophy.
General History.	Grammar.
Physical Geography.	
Physiology.	

SECOND GRADE.

General Knowledge.	General Knowledge.
Reading.	Natural Philosophy.
History.	Arithmetic.
Physiology.	History.
Arithmetic.	

THIRD GRADE.

Reading and Spelling.	Arithmetic.
Arithmetic.	Reading and Spelling.
Natural History.	Natural History.
Objects.	Memorizing and
American Literature.	American Literature.

FOURTH GRADE.

Arithmetic.	Kindergarten.
Reading and Spelling.	Reading and Spelling.
Geography.	Geography.
Memorizing.	Objects.
	Memorizing.

FIFTH GRADE.

Geography.	Kindergarten.
Reading.	Reading and Spelling.
Arithmetic.	Geography.
Memorizing.	Arithmetic.
	Memorizing.

Instruction in the above subjects was given to seventy-two pupils during the school year of 1885, and to eighty-three pupils during the year 1886.

The reading classes have used books in line print almost exclusively.

A class of beginners in the New York point system was organized during the past year and has made satisfactory progress. The Braille system of point writing has been in use for a number of years by some of our pupils, although instruction in this system has not been given in school. After having compared the merits of the two systems thoroughly, I would pronounce in favor of the New York system of point print and advise that the use of the Braille system be discontinued altogether.

An important addition was made to the department in the matter of a kindergarten class. This work is especially designed for younger pupils, although, I think, that most of the pupils in our schools could profit by this method of instruction.

The clumsiness of fingers unused to labor never appears so great as when those fingers are made to do double duty in supplying the deficiency occasioned by the loss of sight. In some pupils this difficulty can only be remedied by engaging in exercises designed to strengthen the fingers, and to

enable all their movements to be made with precision. As many blind persons must, necessarily, depend upon mechanical employments as a means of self support, the necessity for early attention to the training and discipline of the hand becomes apparent. This training should come early in life, and mastery over the movements of the hands should be acquired at that age when hands and body are developing most rapidly. Motion then becomes natural and easy. It does not partake of the hesitating, artificial character, which is often found in persons of more advanced years, who had not acquired precision of movement in early life.

A pupil, whose hands have been properly disciplined, comes to the learning of a trade with a very different equipment from that of a person whose hands have always been idle. He finds that the trade calls for repetitions of motions with which he is already familiar, and in the performance of which his hand is strong and exact.

The kindergarten meets the demand for this early training as well as anything that has yet been devised. I do not mean the kindergarten as it is ordinarily taught, for much of this work in our common schools would not be at all suited to the needs of blind pupils. So much work as relates to colors or lines must be either discarded or, at least, so modified as to appeal to the sense of touch of the blind child Modeling in clay of the simple geometrical figures, the forms of birds' nests and animals, houses, articles of furniture, and many others that may strike the fancy of the child, furnishes a great source of amusement as well as of instruction. Paper folding and weaving, and the formation with thread and needle of pictures on perforated card-board, besides stick and tablet laying, are also extensively employed. We have also introduced exercises in parcel wrapping with good results. Pupils first learn to wrap paper around blocks of wood, and then to tie them up neatly. Objects of different shapes, and more difficult to manage, are then introduced as the fingers become more deft.

It is designed that the mastery of one form shall be followed by the presentation of another requiring a higher degree of dexterity, until the doing up of saw dust or sand into packages closes the exercises in parcel wrapping.

There is another feature which, so far as I am aware, is peculiar to our kindergarten, and which I think is destined to prove useful here as well as in other institutions for the blind. It has reference to the various uses which can be made of cords or small ropes in the exercise and development of the sense of touch.

The apparatus which we use is very simple and consists of a board which is supported on brackets about five inches from the wall and at a height from the floor equal to the height of a table. Running lengthwise of this board are two lines of holes designed to afford an anchorage for the cords while the pupils are at work. These holes are one inch apart and are made with a three-sixteenths-inch bit. The cord we have used is a braided chalk line cut up into lengths of about four feet. With a knot on one end and the other end dipped into melted glue to prevent its unravelling, the cord is drawn through the hole in the above described frame-work. Any number of these cords desired may be held firmly in this frame-work at the same time. A line of chairs placed conveniently near furnishes seating for pupils.

A great variety of work may be executed with the aid of this apparatus, much greater, indeed, than we have yet been able to put into practical operation. Our exercises so far have aimed to instruct pupils in tying different

kinds of knots, braiding from three to seven strands and splicing cords, etc. I hope that its usefulness may be extended beyond the limit as here indicated, for I think that this or similar apparatus will have a place in the future kindergarten for the blind.

The pupils' libraries of raised-print books consist largely of books in what is known as line-print. This institution has received books to the value of $563 from the American printing house for the blind during the past two years. These books were paid for from the congressional grant of 1879, which grant was made to furnish books and apparatus for the blind. We have also put into raised print the New Year's letters of 1885 and 1886 of Bishop Gillespie to the pupils of this institution. Blind persons throughout the State have been furnished with copies of these letters free. Many of them have also been supplied with raised-print books on condition of their paying the cost of transportation.

MUSIC DEPARTMENT.

The addition to the equipment of this department by the purchase of five Knabe pianos, three square grand and two upright, was one of importance. Two of the old pianos have been given over to the tuning department, which leaves eleven pianos for regular music practice.

The services of two teachers have been in constant demand in this work. At the close of the term of 1885, Mrs. L. S. Roper, vocal teacher, and Miss Jennie VanWormer, teacher of instrumental music, severed their connections with the institution. The vacancies were filled by the appointment of Mr. and Mrs. Aaron C. Blakeslee, as teachers, respectively, of instrumental and vocal music.

A class in piano tuning which at present contains seven members, was inaugurated during the past year. The progress so far made by these young men has been very satisfactory. There is a good prospect that they will find in this employment a comfortable means of self support. Instruction is given both in the scientific and practical phases of piano tuning, and a special aim is made of thoroughness in every part of the work.

The instructions also embrace the best way of making all ordinary repairs to pianos, an opportunity is afforded for practical work in this direction. There can be no question but what the blind possess especial gifts, which enable them to practice this trade with great skill. The keen perception and interpretation of sounds is a necessary result of blindness, arising as it does from the constant use of this organ of sense in gaining a knowledge of objects which by other people are apprehended by the sense of sight.

It is difficult to estimate at its full value the delicate and refined perception of the sense of hearing usually attained by cultivated blind persons. Not only is the critical accuracy of this sense noticed in the correct appreciation of musical sounds but it is also to be seen in the readiness with which the mood or state of mind of the speaker is interpreted from the sound of the voice. It is only by noting small differences of sounds that such a power of determining the exact feelings of another becomes possible. This refined delicacy of the sense of hearing is a desirable equipment of a person practicing the art of piano tuning. In the struggle of competition in this kind of employment at least nature has given the blind man a decided advantage over his seeing brother.

As one of the numerous instances of the work of blind persons in piano

tuning, I may refer to the fact that the Perkins Institution for the Blind has been awarded the contract for eight years in succession of tuning the pianos of the Boston schools, one hundred and thirty-two in number. I may also refer to the fact that large piano establishmeuts are having their tuning very extensively done by blind persons. The pianos of this institution have been tuned and kept in repair for several years by blind tuners who were formerly students in the institution, and the work has never been better or more uniformly done in the history of the institution than has been done by these blind men.

WORK DEPARTMENT.

The affairs of this department have been conducted with vigor and success.

The general character of the employment afforded the pupils has been very much as indicated in former reports, although in the girls' branch there has been a noticeable improvement in the quality of the manufactured articles.

In the prosecution of this work, the teacher and pupils have labored with commendable diligence and zeal. Some of the work done wholly by the blind girls speaks strongly for the thorough discipline which they receive.

Sewing by hand and machine, both fancy and plain, the hemming of sheets, napkins and towels, knitting and crocheting, darning and mending, constitute the main features of the girls' work. The sewing for the household has been mainly done in this department, and the clothing of many of the pupils has been made by the pupils themselves. An exhibit was made at the Central Michigan Fair, at Lansing, in September, 1886, of the work of this department together with samples of the work and apparatus of the other departments of the school. The quality of this exhibit excited considerable attention, and enlisted a very general interest in the peculiar work which this institution is accomplishing.

In the broom shop the work has progressed satisfactorily. The boys have received instruction in all of the operations entering into the manufacture of brooms, and as a rule have made good use of their advantages. On completing his trade, each boy can perform every operation from removing the corn from the bale and bleaching and sorting it, to properly labeling and bunching the finished product.

In addition to the number of pupils who have pursued studies in the literary course, and at the same time have learned the trade of broom making and have left the institution to engage in their trades, there have been admitted about ten or twelve men for the express purpose of learning a trade. These persons were over the age of twenty-one years and so were admitted only as special reasons for doing so appeared to exist in their cases. As a rule these persons became blind after reaching the age of twenty-one years, and generally as the result of accident. Perhaps one-half of the number became blind as the result of accidents with explosives in mines. In every case these men had been accustomed to active, hard work before becoming blind, and I believe that in every case they have pursued the trade of broom making with success after leaving the institution.

I would advise, until these blind persons are provided for in some other institution, such as the working homes for blind men, that we continue to receive the most worthy and deserving of them as we have done heretofore. The practical value of the shop work to these men has been very great.

J. F. McELROY,
Superintendent.

ADRIAN COLLEGE.

VISITORS' REPORT.

HON. THEODORE NELSON,
Supt. of Public Instruction:

DEAR SIR—The State visitors to Adrian College under your appointment, discharged the duties assigned them, and unite in the following report :

Adrian College is situate on College hill, in the western part of the thrifty city of Adrian. Its campus contains 20 acres of high, rolling, beautiful grounds, just adapted to the purposes to which they are devoted, with especially inviting and healthful surroundings. It is artistically platted, considerably improved and beautified, and with but little additional outlay of work and money will not be excelled for a college site by any location in Michigan.

There are four buildings now erected, large and roomy, wisely designed, and constructed with reference to College purposes. A fifth is in the general plan, which when built, will make the educating workshop complete. The exterior of the buildings is neat and shapely. Among the features of the interior which attracted our attention are the spacious, well furnished Society rooms, the Star and Lambda Phi. These, with several recitation rooms and offices, are upon the first floor of the chapel building. They are tastefully arranged, and give evidence of the care and honorable strife of each not to be outdone by the other. The chapel will seat 400, and contains a fine pipe organ. The halls on the extreme north and south of the grounds contain plea-ant waiting rooms, spacious parlors, large assembly rooms, music and recitation rooms, together with a number of furnished suites of rooms for a limited number of students who wish to accept the dormitory system. The North Hall, in addition to the President's office, recitation rooms and public offices, contains apartments for about 100 young men. The South Hall of the same ample size and general arrangement, in addition to Music rooms for classes in Instrumental and Vocal Music, to which very especial attention is given, has accommodations for about the same number of young women. All the departments of College instruction are open to both sexes, and the co-education is conducted with eminent satisfaction.

The first floor of the Museum building has a Library hall, Reading rooms, Telephone room, Laboratory, Recitation and Lecture rooms for the Theological department, which is one of the special schools of the College. The Museum contains large and valuable zoölogical collections, and within the past year has received many important contributions of birds, fishes, minerals,

shells and woods from the territories and western States of our country, and from foreign fields.

The whole interior arrangements and conduct of the College reveal great care and devotion to the best training and culture of the large class of students who avail themselves of its advantages.

The institution is well manned and is doing good and thorough work in the educational interests of Michigan. The Faculty are a noble people, and though contending against financial pressures, have resolved to live within the College income and work vigorously while waiting for better days. President Stephens is an efficient instructor and painstaking officer, and with the assistance of an an able corps of co-workers, will, by the help of Adrian and increasing endowments, through the blessing of God, place Adrian College among the very first and best institutions of our State.

The college has an endowment of about $90,000, which yields an income altogether too limited for its needs. It receives very considerable help yearly from the Methodist Protestant church, under whose care and patronage it exists. The receipts are somewhat increased from its dormitories, initiation, and class fees and other resources, and yet are too small for the demands made upon them. Its Faculty are determined, however, to do thorough work in the establishment and carrying forward of an institution that shall do its part in the literary, scientific, and religious departments of education in Michigan.

The varied departments of college instruction include the College of Literature and Arts, the School of Theology, School of Music, Normal School, School of Commerce, with courses of study equal to those pursued in our best Colleges. A Preparatory Department under able instructors prepare students for the advanced curriculum of the College, from which they are graduated with honors and degrees, as in the highest Colleges and Universities of the country. At least fourteen States and Territories were represented in the body of students during the last year, and the senior class on class day acquitted itself with great credit, showing thorough drill and excellent scholarship.

We are assured that Adrian College has before it an honorable career of great usefulness that will reflect credit upon all who participate in the work it is accomplishing. It appeals earnestly for larger endowments to the men and women of wealth, not only in the religious denomination which especially fosters it, but also to those in the beautiful and busy city on whose borders it is located, and who pride themselves in its prosperity, and to others who would establish a most worthy monument of goodness and benevolence in the endowment of Professorships that shall perpetuate their name and memory.

Very respectfully,

JOHN McELDOWNEY,
S. BECKWITH,
J. G. PLOWMAN,
Board of Visitors.

ALBION COLLEGE.

REPORT OF PRESIDENT.

HON. THEODORE NELSON,

Superintendent of Public Instruction:

SIR—I have the honor to present the following report of the work and progress of Albion College for the year ending June 24, 1886.

The attendance of the students was 365, being forty in excess of the preceding year.

The bachelor's degree was conferred on sixteen students, while thirteen graduated from the conservatory of music.

With this year ends the first quarter of the first century of the institution, and during commencement week a quarter-centennial celebration of much interest was held.

I am glad to be able to report substantial progress in all departments. The library has been improved by the addition of 629 volumes; the biological laboratory by a large increase in its appliances of work.

Much interest has been awakened in the study of history by the system of historical maps devised by Professor F. M. Taylor, on which a patent has been secured. By means of these maps all territorial changes, location of battles or other great events and every geographical modification is readily indicated, so that the student can trace on the same background the growth or decadence of nations through all the periods of their life. During the year the institution has prepared a large number of maps on this plan, so that in the rooms of the history department there is already quite an extensive map museum. Each map contains within itself, in most cases, the resources and information of a score of maps of the ordinary kind.

THE WORK THE COLLEGE HAS UNDERTAKEN TO DO.

We have arranged four distinct and radically unlike courses of study. The Classical, the Latin Scientific, the Scientific, and the English. In the Classical the Latin and Greek hold a prominent place. In all Colleges, both in Europe and America, until quite recently, there was no other course. And at present many scholars maintain that more culture is gained from this line of work than from any substitute that has been offered.

In the Latin Scientific the Greek is replaced by other studies *requiring the same amount of time for their mastery.* These studies are principally—though not wholly—in science and mathematics. But students who desire to make a specialty of Latin or some of the modern languages, can substitute further

work in these languages for such branches in science or mathematics as have been introduced into this course in place of the Greek found in the Classical Course. This will make the course preëminently linguistic, the same as the Classical Course. The degree conferred is Bachelor of Philosophy—not Bachelor of Arts as in the Classical Course.

In the Scientific Course there is no ancient language in the College curriculum, and but one year of required Latin in the Preparatory, and also one year of either Latin or Greek. But the amount of Mathematics, Science and History is largely increased.

The College has established an English Course in which no Latin or Greek is found, but special attention is given to the study of the English language including the Anglo-Saxon. This course supplements the work of the English Course of the High Schools, and supplies a want which Colleges generally do not meet.

The degree which the student will receive on graduation is determined by the course he has pursued up to the end of the Sophomore year. The two years which follow are devoted wholly to *elective* work, except Psychology, Logic and one term of Chemistry, which are required of all students who are candidates for a degree.

Several studies in the Freshman and Sophomore years have recently been made elective.

We have no fear of injurious results following from the wide election allowed. Our experience has shown that it is by no means common that the easiest branches of study are chosen—the result depends mostly on mental predilection, or the bearing of work on anticipated callings in the future.

In most cases the choice seems to grow out of mental type, rarely out of ease of accomplishment. We are convinced that the departure from the old iron-clad system has been decidedly in the interest of scholarship. The increase of the scholarly spirit has kept pace with the greater freedom of choice of work.

METHODS.

Four modes of instruction are employed. One is the guidance of the pupil in the study of a text book, this accomplished by recitations. Another is the substitution of formal lectures for the ordinary recitation. Both of the foregoing methods are used. A third mode is adopted in experimental science, such as Chemistry. The student does not simply listen to the lectures and witness experiments performed by the teacher, but personally handles reagents, prepares the experiments, and in general performs the scientific work of the laboratory. Two results are thereby secured, a much more accurate and complete knowledge of the subject studied, together with those special forms of knowledge which prepare the student to teach the branches studied.

The fourth is the research method. After the young man goes forth from college halls his work is independent, he ceases to study under the guidance of a teacher. Usually the conditions of gaining knowledge within the college are quite unlike those which necessarily prevail outside of the college. The chasm ought to be bridged. The research method consists of an exhaustive study of the questions under consideration, looking up all the authorities, tracing the history of thought and opinion, comparing the views of writers, studying the subject from all sides; and then in the exercise of independent judgment drawing such conclusions as are warranted by the investigations

made. The advantages connected with this method are many and important. Students learn how to use books, tney gain the habit of thorough investigation; they develop a judicial spirit of inquiry by wide comparison of views in the authorities consulted; and thus before leaving college they are far on the way in their development into scientists, statesmen, leaders in social reform, etc.

RANGE OF RESEARCH.

The subjects selected for research belong to nearly every department of study. Science furnishes a fruitful field, and admits of original experiments and investigations carried forward with the microscope, chemical reagents, or astronomical instruments.

Political science presents themes like the following: the tariff, banking, growth and nature of institutional governments, historic development of principles of civil freedom, political parties, political suffrage, etc.

Social science and social reform supply us with many valuable lines of work of which the following are examples: Illiteracy, pauperism, causes of crime, treatment of criminals, the pardoning power, the Indian question, divorce, relation of the state to education, temperance, etc.

Philology, philosophy, applied science, applied mathematics, literature, and nearly every branch of study afford themes which have a practical outlook, in connection with which research work can be profitably done.

Thus the college not only feels the pulsations of the great heart of society, catching inspiration from the living world of human activities, but it supplies culture and scholarship which become a mighty agency for lifting up the race to a higher plane. In this way these higher institutions of learning come into the closest relations with the public, and contribute immediately and in the most effective manner to the great interests of society.

IN WHAT SENSE IS ALBION COLLEGE A CHURCH SCHOOL?

It was founded by the Church.

It is under the control of the Church.

The majority of the Board of Trustees—twelve members of the fifteen—are appointed by the Detroit and Michigan Conferences. The Trustees make an annual report to these conferences of the condition, wants, and work of the institution.

These conferences appoint Visitors to the College, who are required to report to the appointing bodies the result of their inspection of the workings of this school of learning.

Each of these Conferences is represented on the Centenary Board of Managers by fourteen persons—seven ministers and seven laymen—who hold a meeting annually to advise with the Trustees in regard to the interests of the institution.

But it is not a Theological School; it is an institution for general learning and culture.

Its government and spirit are religious, but it imposes no sectarian test.

It requires attendance of students upon the daily religious chapel exercises, but these exercises are spiritual and in no sense sectarian.

All the students must attend church each Sabbath morning, but their church preferences are respected, and they select their place of worship without any dictation or advice from college authorities.

But while every student has the same religious freedom as at his home and in the community where he resides, all instruction is from a theistic standpoint, and no science or philosophy is considered to be complete which does not have its roots in, and spring forth from the divine Infinite Intelligence. Science as a system capable of being understood cannot exist apart from God. In God's nature we have the explanation of all science, and the ground, indeed the whole of genuine philosophy. We do not teach science as one thing and theism as another, but theism as the basis of, the producing cause, the reason for, the most important factor, the very heart of science. That Philosophy is incomplete, and hence fatally erroneous, which does not begin with infinite intelligence.

In the entire range of agnosticism we hold there is not a whole truth. Not a law in science, not a principle in philosophy, not a fact in nature but that is robbed of some portion of its meaning by leaving God out of the problem of being. The question is not whether it is proper to teach science or truth of any kind in disregard of God as its source, but is there science or truth without a God? Is not the beginning and support of all truth divine? Is not he an impostor who brings you for truth in any domain, that which has no God in it? Is it not a first principle in philosophy that the conditioned is utterly meaningless without the unconditioned, that you cannot take one step in the temple of truth without starting from God's throne; that you cannot even enter this temple only as God is the doorway.

Albion College does not teach sectarianism, but it does teach God in every lecture room, and on every occasion. It does more than this; it takes into the account the fact that its whole work has for its object the culture of spiritual beings; that man is more than intellect, he possesses relations to the Infinite Soul, and no college, it affirms, has a right to carry forward its work in such a way as to sever the creature from the Creator, either in the forms of thought, and truth as the product of thought, or in the supply of the spiritual nourishment the life must obtain to reach the highest development of manhood. Colleges ought to make men, not scholars only. And that the loftiest and fullest manhood can be attained without God to rest upon, and God consciously touching every fiber of the soul, in the nature of the case cannot be true.

THE UNIVERSITY IDEA.

It is proposed as rapidly as possible to develop the College into a University. In making this statement we do not wish it understood that we are planning to associate with the College the ordinary professional schools. Offers in this direction have already been made which we have not entertained. But we do desire to build up an institution offering special advantages for study and research far beyond the scope of the ordinary college curriculum. A collection of schools in one corporation does not give us a University in any proper sense of the word, unless the unity is progressive, a gradation from the College up through post-graduate schools. It is a misnomer to call an institution a University when the aggregation of schools is not in the interest of higher learning; when the schools added to complete the University organization admit students without graduation from college, even at a point in scholarship too low for admission to the Freshman class. Scholarship progressive, successive, in passing from one school to another proceeding from the lower to the higher—not merely from one kind of intellectual work to another—in this do we find the true University idea.

Albion College now presents several lines of work which are not common to ordinary colleges. It has introduced wide elections, covering considerably more than one-half of all the work done. In the elections provided for it opens up special channels of study of indefinite extent.

It is making research work—some of it original and some of it carried forward on the basis of extended authorities—a prominent feature of its movements. The additions to the library are only in small part for promiscuous reading; they are principally made with a view of supplying the highest authorities and best helps for the most exhaustive study. Arrangements are made for post-graduate study and research.

It is confidently expected that special provision, on an extended scale, will soon be made for technological study.

In our idea University work does not mean a mingling of the scholastic and professional, in which that which gives the name University is on the lowest plane of scholarship, but a progressive unity of ascent from the College of Liberal Arts up to higher spheres of learning and culture.

CONSERVATORY OF MUSIC.

The Conservatory of Music is enjoying great prosperity, employing six teachers, and enrolling 169 students. Instruction is given on all the leading instruments, in voice culture and in harmony and counterpoint. It contains an orchestra of about fifty instruments; also a band of reed and brass instruments. The musical course covers four years, and the musical and literary five years. On the completion of the former a diploma is awarded, and on the completion of the latter the degree of Bachelor of Music is conferred.

SCHOOL OF PAINTING.

The School of Painting is not so largely patronized as the Conservatory of Music, but is now becoming fixed in its plans, and the appliances for work have recently been considerably extended.

FURTHER ENDOWMENTS.

The Institution has been prosecuting the work of endowing a chair during the year, with good prospect of success. Efforts to complete the endowment of an Alumni Professorship, which were inaugurated a short time since, have been practically suspended until this last movement is completed.

All of which is respectfully submitted.

L. R. FISKE,
President.

BATTLE CREEK COLLEGE.

REPORT OF THE PRESIDENT.

HON. THEODORE NELSON,

Superintendent of Public Instruction:

SIR—I have the honor to submit herewith the annual report of the Battle Creek College. Since my last report the facilities of the College have been greatly increased by the erection of one brick building 50x70 feet, three stories high with a basement, and another 36x56 feet, one story high, the latter being used for a carpenter shop in the Manual Training department. The present attendance is larger than ever before in the history of the Institution, and the grade of scholarship appears to be better than for several years.

The instructors are as follows:

Wm. W. Prescott, President.
Uriah Smith, Biblical Exegesis.
Dudley M. Canright, Biblical Exegesis.
E. B. Miller, Biblical History and Literature.
C. C. Lewis, Eng. Language and Literature.
Joseph H. Haughey, Mathematics.
A. W. Kelley, Sciences.
Isaac E. Wilson, Greek.
Mrs. Emma F. Wilson, Latin.
Ida E. Rankin, Preceptress.
James W. Loughhead, Geography and History.
Mrs. Cora M. Loughhead, English Language.
Mrs. E. B. Miller, Botany and Assistant in Biblical History.
August Kunz, German.
Adolph B. Oyer, Danish.
August Swedberg, Swedish.
Abel Arramy, French.
Edwin Barnes, Vocal and Instrumental Music.
Mrs. E. W. Farnsworth, Missionary Department.
Mrs. A. Kirby, Primary and Intermediate Department.
Burton O. Carr, Carpentry.
J. W. Robinson, Turning and Scroll Sawing.
B. H. Welch, Printing.
John F. Welch, Printing.

The courses of study are the same as last year, Classical, Scientific, Eng-

lish, with a preparatory course for each, Biblical, Intermediate and Primary. Instruction in Manual Training is given in connection with all the higher courses. Wentworth's Arithmetic and Chittenden's Composition have been adopted as text books, but no other changes have been made. The library is now kept open all of the time, and is used much more than formerly. Quite a large addition has been made to the list of reference books. A room 50x70 feet has been reserved for a gymnasium, and a half hour's instruction is given each day in free gymnastics and marching. The number of students in each class is as follows:

Reading	47
Writing	25
Arithmetic	170
Chemistry	5
Physiology	13
Algebra	17
Book-keeping	35
Geometry	18
Latin	8
Greek	6
English Literature	5
Rhetoric	30
Logic	9
Composition	29
Grammar	201
History	29
Bible Lessons	92
Bible Lectures	175
Missionary Instruction	70
Geography	25
Natural Philosophy	11
Trigonometry	2
Phonography	19
German	25
Danish	15
Swedish	4
French	5

All of which is respectfully submitted.

WM. W. PRESCOTT, *President.*

VISITORS' REPORT.

HON. THEODORE NELSON,

Superintendent of Public Instruction:

SIR,—As chairman of the committee appointed by you to visit Battle Creek College, I submit the following report:

I visited the College on April 7, found the buildings and grounds well kept, in excellent repair. The Library, Laboratory and Philosophical Apparatus indicated good work.

Although the present building accommodates 411 students, ground was just broken for an important addition, which, when completed, will greatly facilitate its increasing work. The Institution is so well suited, both in its fine location and in its object and

modes of training, that it appeals to all parts of the country for students. Two hundred and nineteen out of the four hundred and eleven students this year are from other States. The number of foreign students is increasing, the Institution being really the most important in the country belonging to the society of Seventh Day Adventists.

Students are permitted to make choice of studies, and as their course is varied and full, it affords great opportunities for students to get such education as they deem most important and suited to their opportunities or means.

They have an excellent dining hall, and furnish good living, and at a remarkably low price.

The morale of the Institution is excellent; it not only aims but actually secures such persons as feel the value of an education, and intend to use it. It is a great credit to Michigan.

Yours respectfully,

JUSTIN R. WHITING,

Chairman Board of Visitors.

DETROIT COLLEGE.

REPORT OF THE PRESIDENT.

HON. THEODORE NELSON,

Superintendent of Public Instruction:

SIR,—In compliance with the laws of the State of Michigan, I have the honor to submit the following report of the condition of Detroit College for the session ending June 30, 1886:

The officers of the institution for the past year were as follows:

BOARD OF TRUSTEES.

Rev. John T. Frieden, S. J., President.
Rev. Edwin D. Kelly, S. J., Secretary.
Rev. Dominic Niederkorn, S. J., Treasurer.
Rev. Hugo M. Finnegan, S. J.
Rev. Benedict Masselis, S. J.

FACULTY.

Rev. John P. Frieden, S. J., President and Prefect of Studies.

Rev. Edwin D. Kelly, S. J., Professor of Natural Sciences and Higher Mathematics.

Rev. Martin A. McGinnis, S. J., Professor of Rhetoric, English and Latin Literature.

Mr. James J. Carbley, S. J., Professor of Poetry, Latin and Greek Literature, and Elocution.

Mr. William L. Harnsley, S. J., Professor of Humanities, English Literature.

Messrs. Thomas F. Brown, S. J., Bernard J. Otting, S. J., James S. Reade, S. J., Edward P. Cappinger, S. J., Instructors in the Academic Department, Bookkeeping and German.

Mr. Edward P. Hermann, S. J., Instructor in Commercial Department.

Rev. Cornelius B. Sullivan, S. J, Instructor in the Elementary Department.

Mr. George J. DeLazarro, Professor of French.

The Detroit College, now completing the ninth year of its existence, was incorporated April 27, 1881, under the general law of the State of Michigan, with power to grant such literary honors or confer such degrees as are usually conferred by similar colleges and institutions of learning in the United States.

The course of studies is that pursued in all Jesuit colleges. It is modeled on the "Ratio Studiorum" of the Society of Jesus, and embraces all the elements of a thoroughly Christian and polite education. The doctrines and evidences of the Catholic religion, Logic, Metaphysics, Ethics, Astronomy, Natural Philosophy, Chemistry, Mathematics, Rhetoric, Composition, Elocution, History, Geography, Book-keeping, Arithmetic, the Latin, Greek, English, French and German Languages.

The course of studies is divided into three departments: The Scientific-Collegiate, the Academic and the Commercial. The Scientific-Collegiate department comprises four classes: Philosophy, Rhetoric, Poetry, Humanities. A brief outline of the work done in these classes may not be uninteresting.

The course of instruction for the class in Philosophy is as follows: Evidences of Religion, Logic, Metaphysics, Ethics, Differential and Integral Calculus, Astronomy, Natural Philosophy, Chemistry, Essays, Debates, Elocution.

For the class of Rhetoric: Evidences of Religion, the Latin and the Greek Oration, English Literature of the 17th, 16th and preceding centuries, Study and Criticism of British and American Orators, Original Composition, Debates, Elocution, Surveying, Analytical Geometry, Natural Philosophy, Chemistry, Modern History.

For the class of Poetry: Evidences of Religion, Latin and Greek Poetry, English Literature of the 19th and 18th Centuries, Study and Criticism of British and American Poets and Essayists, Original Composition, Debates, Elocution, History of the Middle Ages, Plane Trigonometry, Spherical Trigonometry, Natural Philosophy, Chemistry.

For the class of Humanities: Christian Doctrine, Latin and Greek Historians, Precepts of Rhetoric, Study of Essays, Narratives, Description, Original Composition, Elocution, Ancient History, Geometry, Drawing.

The Academic Department is a three years' course of ante-collegiate studies. During these years the students are carefully drilled in the elements of the languages, the History of the United States and of the Church, Physical Geography, Arithmetic, Elocution, Algebra, Original Composition, Book-keeping; so as to be thoroughly prepared for the Scientific-Collegiate course.

The Commercial Department embraces all the branches of a good English education: Reading, Penmanship, Spelling, Drawing, Arithmetic, History, Geography, Book-keeping, Elocution, Grammar, Original Composition, Algebra, Geometry. The Commercial course is completed in four years, and prepares students for business or commercial pursuits.

A class of rudiments for young students unqualified to enter the lower classes of the Academic or Commercial courses has been opened to supply the necessary preparation.

Those who complete the Scientific-Collegiate course receive the degree of Bachelor of Arts. They can afterwards obtain the degree of Master of Arts by devoting one year more to the study of Philosophy. or two years to any of the learned professions, provided that the Board of Trustees be satisfied with their proficiency and their moral conduct.

The class standing and progress of each student is ascertained by a system of monthly competitions and by examinations. There are two examinations of all the classes every year—one at the end of January, and the other at the end of June. In each of the semi-annual examinations the several classes are

examined in all the branches studied during the previous half year. Any student failing in the January examinations descends to a lower class, unless he makes up the deficiency within a specified time, besides keeping up with the class in its regular work. Failure in the June examination debars a student from advancement to a higher class.

The College discipline is mild but firm. Students are required to attend regularly and seriously to their studies, and to conduct themselves in a manner at once Christian and gentlemanly. Any serious violation of these essentials renders the offender liable to dismissal.

Reports are sent regularly to parents or guardians of the students informing them fully of the conduct, application and progress of their sons or wards. In these reports such defects as require home correction are fully stated. Besides, testimonials of good conduct and exemplary application to study are conferred on deserving students each month in the public hall of the College.

The cabinet of scientific instruments has been notably enlarged, and extensive additions have been made to the library.

The College has been steadily growing in favor with the community, as is evinced by the constantly increasing attendance and other marks of approval. Whilst the records of the session of 1881-'82 indicate an attendance of 157 students, the session of 1882-'83 counted 186, the session of 1883-'84 raised the number of students to 217, the session of 1884-'5 records 228, and the last session (1885-'86) shows an attendance of 243 students. Of these 171 were in the Scientific-Collegiate and Academic department, 37 in the Commercial, and 35 in the Preparatory department.

Respectfully submitted,

J. T. FRIEDEN, S. J.,
President.

VISITORS' REPORT.

HON. THEODORE NELSON,

Superintendent Public Instruction:

SIR—Your committee appointed to visit Detroit College, have endeavored to perform the duty assigned, and would make the following report:

After a most cordial reception by the President, Father Frieden, they were shown through the various departments where students were busy with closing examinations.

While in every direction thorough and conscientious work is being done, your committee noticed some things which, in their opinion, deserve special mention.

They found the discipline of the College somewhat different from that of other Institutions. While everything was done in the most informal manner, yet, in all classes, there was close individual attention combined with prompt and cheerful obedience and polite address. This your committee desire specially to commend.

They would also make special mention of the work done in History, Literature and the Classics. Students are doing something more than "surface" work in these studies.

Your committee would speak in particular of the careful attention given to public speaking. Those who have this work in charge are doing it in a very able and thorough manner.

They found, too, that much attention is being given to moral and religious instruction, and that students in the College are being most thoroughly taught in the principles and doctrines of the Catholic faith.

In conclusion they will say that they believe the College to be growing in popularity and usefulness, and it is to be hoped that its friends and patrons will see that it receives the financial support which is so much needed and deserved for the erection of more suitable buildings, and for the fuller equipment of its various departments.

Respectfully,

EDWARD DUFFY,
E C. THOMPSON,
Committee.

DETROIT HOME AND DAY SCHOOL.

REPORT OF THE PRINCIPAL.

HON. THEODORE NELSON,
Superintendent of Public Instruction:

SIR—Not having at hand the questions required to be answered in a written report, I think the most of the points are covered in the statistical report enclosed within this. The school is regularly graded, and the ages of the pupils range from six years up to twenty or more. The number enrolled was not as large as the year previous, yet the advanced classes were larger. The class that graduated, numbering sixteen, compared with that of twelve in the previous year, and of eight the year previous to that, is a favorable showing of the work that is being done. There is no question that the school is doing much and more every year to promote an ambition for thorough education in the minds not only of its pupils, but in the community at large, and to cultivate a desire in the minds of young ladies for a more advanced or collegiate education. Two of the last class of graduates have gone to college, one to Smith and the other to Vassar, and both were admitted with credit on examination. A post graduate class has been organized this year, and numbers twenty. To meet a popular demand a kindergarten department has also been organized this year, and is full. The course of studies is very much the same as that of the common schools, including a good high school in such cities as Detroit and Cincinnati; but in our school it is accomplished generally in a much shorter term of years.

The school is in all respects prosperous and successful. If properly endowed its field of usefulness might be very much enlarged, or rather there is a field in Detroit for a more extended work which it might enter with success, if it had the means to do so.

No catalogue of last year was issued, and therefore I cannot send you a copy.

JAS. D. LIGGETT,
Principal.

Detroit, November 16, 1886.

HILLSDALE COLLEGE.

REPORT OF THE PRESIDENT.

HON. THEODORE NELSON,

Superintendent of Public Instruction:

SIR—Complying with the request in your circular of August 31, I have to report that the educational interests of this college are in a hopeful condition. System and thoroughness are insisted on in all its departments. These include an academic, scientific, theological, commercial and art departments, with normal course, which is in charge of trained instructors who pay special attention to fitting students for the practical work of teaching.

The board of instruction consists of twenty-four members, as follows:

FACULTY OF THE ACADEMIC DEPARTMENT.

George F. Mosher, President, Professor of Mental, Moral and Political Philosophy.

Daniel Moses Fisk, A. M., Professor of Chemistry, Biology and Geology.

Rev. John Scott Copp, A. M., Alumni Professor of Logic, Belles-lettres and German.

Arthur Edwin Haynes M. Ph., Fowler Professor of Mathematics and Physics.

Kingsbury Bachelder, A. M., Waldron Professor of the Latin Language and Literature.

James F. Parsons, A. M., Professor of Greek Language and Literature.

Miss Cassie Alda Reamer, A. M., Principal of the Ladies' Department and Professor of French.

Frank Smith, Ph. B., Acting Professor of Chemistry and Biology.

Harriet A. Deering, in charge of the Normal Department.

W. E. Heckenliney, Tutor in Grammar.

Stephen Benjamin Harvey, Tutor in German.

Miss Eva McDoughall, Tutor in Reading.

J. J. Heckman, Tutor in History.

W. O. Robinson, Tutor in Mathematics.

FACULTY OF THE THEOLOGICAL DEPARTMENT.

Rev. Charles Densmore Dudley*, A. M., Marks Professor of Ecclesiastical History and Homiletics.

Rev. Ashman Thompson Salley, A. M., Professor of Sacred Literature.

Rev. Ransom Dunn, D. D., Burr Professor of Systematic Theology.

* Deceased.

FACULTY OF THE MUSIC DEPARTMENT.

Melville Warren Chase, Professor of Instrumental Music.

Alva Graves, Instructor in Vocal Music.

FACULTY OF THE ART DEPARTMENT.

George Balthazar Gardner, Professor of Painting and Drawing.

Ada M. Gardner, Instructor in Water Colors and Crayon.

FACULTY OF THE COMMERCIAL DEPARTMENT.

Alexander Campbell Rideout, LL. D., Principal and Professor of Political Economy, Science of Accounts and Electrical Science.

Warren Allen Drake, Professor of Commercial Law, Book-keeping and Penmanship.

Henry T. Benton, Instructor in Penmanship.

FACULTY OF THE NORMAL DEPARTMENT.

Miss Emily A. Deering, with a competent corps of assistants.

ATTENDANCE.

The catalogue of November, 1885, gives the summary of attendance as follows:

Collegiate:		
Post Graduate	1	
Graduates	20	
Seniors	6	
Juniors	33	
Sophomores	48	
Freshmen	67	
		175
Theological:		
Graduates	3	
Senior Class	3	
Middle Class	4	
Junior Class	6	
Preparatory Class	36	
		52
Academic Preparatory:		
Senior Class	70	
Middle Class	12	
Junior Class	68	
Normal	11	
English and Select	94	
		255
Commercial:		
Commercial, Telegraphic, and Penmanship	168	
		168
Music:		
Graduated	2	
Pianoforte	62	
Cabinet Organ	4	
Harmony	16	
Voice Culture	32	
		116
Art:		
Painting in Oil, Crayon and Water Colors	22	
Graduates in Drawing and Perspective	7	
Drawing and Perspective	47	
		76
Total		842
Deduct names entered more than once		224
Attendance		618

COURSES OF STUDY.

The following statement shows the courses of study and text books used:

I. CLASSICAL COURSE.

The studies required for the Freshman Class are: The common English branches; Latin Grammar, including Prosody; Cæsar, four books; Cicero, six orations; Virgil's Æneid, six books; Latin Prose Composition; Greek Grammar and Lessons; Xenophon's Anabasis, three books; Greek Prose Composition; Algebra, to Part III., Olney's Univ., Plane Geometry; Composition and Rhetoric; United States History; Ancient History; Natural Philosophy, and Civil Government.

Freshman Year.

Fall Term.—Livy—Chase and Stuart. Iliad—Keep. Solid Geometry—Olney. English Classics.

Winter Term.—De Amicitia—Chase and Stuart. Greek Selections—Fernald. University Algebra, Part III.—Olney. English Classics.

Spring Term.—Horace—Chase and Stuart. Greek Selections—Fernald. Trigonometry—Olney. English Classics.

Sophomore Year.

Fall Term.—Demosthenes—Tyler. General Geometry or French. Inorganic Chemistry—Syllabus. English Classics.

Winter Term.—Tacitus—Germania and Agricola or Juvenal. Calculus—Elective with French. Organic Chemistry—Syllabus and Lectures, English Classics.

Spring Term.—Antigone—D'Ooge. Calculus—French. Botany—Syllabus with Laboratory Practice and Microscopy. English Classics.

Junior Year.

Fall Term.—German Grammar—Whitney. Mechanics—Peck. Comparative Zoology—Packard, with Laboratory Practice and Microscopy. English Classics.

Winter Term.—German Reader—Whitney. Physics—Ganot. Human Physiology—Lectures with Dissection and Microscopy. English Classics.

Spring Term.—German Prose—Boisen. Geology—LeConte. Astronomy—Snell's Olmstead. English Classics.

Senior Year.

Fall Term.—Intellectual Philosophy—Haven. Logic—Jevons. Speculative Philosophy—Schwegler, with Lectures.

Winter Term.—Rhetoric—Hill. Political Economy—Perry. Evidences of Christianity—with Lectures.

Spring Term—Moral Philosophy—Hopkins. English Literature—Welsh. Mediæval History—Lectures.

English Classics are taught once per week during the Course.

II. SCIENTIFIC AND PHILOSOPHICAL.

The studies required for the Freshman Class are: The common English branches; Latin Grammar; Cæsar, four books; Cicero, two orations; Latin Prose Composition; Algebra, to part III, Olney's Univ., Plane Geometry; Composition and Rhetoric; Civil Government; U. S. History; Ancient History; Natural Philosophy. Instead of of the Latin here required, the student may take the Greek required for admission to the Freshman Year of the Classical Course.

Freshman Year.

Fall Term.—Cicero (or Iliad). Solid Geometry—Olney. French Grammar.

Winter Term.—1st Virgil or Greek Selections. University Algebra, Part III—Olney. French.

Spring Term.—2d Virgil or Greek Selections. Trigonometry—Olney. French.

Sophomore Year.

Fall Term.—French or General Geometry—Olney. Inorganic Chemistry—Syllabus. Whitney's German Grammar, Latin or Greek.

Winter Term.—French or Calculus—Olney. Organic Chemistry—Lectures. Whitney's German Reader, Latin or Greek. Qualitative Analysis—Optional.

Spring Term.—French or Calculus—Olney. Botany—Lectures, with Laboratory Practice and Microscopy. Boisen's German Prose, Latin or Greek.

Junior Year.

Fall Term.—Mechanics—Peck. Comparative Zoölogy—Packard. Laboratory Practice. Gœthe's Gœtz—Elective with Latin or Greek.

Winter Term.—Physics—Ganot. Human Physiolcgy—Lectures, with Dissections. Schiller's Historical Sketches—Elective with Latin or Greek.

Spring Term.—Astronomy—Snell's Olmsted. Geology—Le Conte. Schiller's Wilhelm Tell—Elective with Latin or Greek.

Senior Year.

Fall Term.—Intellectual Philosophy—Haven. Logic—Jevons. Speculative Philosophy—Schwegler, with Lectures.

Winter Term.—Rhetoric—Hill. Political Economy—Perry. Evidences of Christianity—Hopkins, with Lectures.

Spring Term.—Moral Philosophy—Hopkins. English Literature—Welsh. Mediæval History—with Lectures.

III. PREPARATORY DEPARTMENT.

I. CLASSICAL.

Junior Year.

Fall Term.—Latin Grammar—Harkness. Arithmetic—Robinson. U. S. History—Scudder. English Grammar– Reed and Kellogg.

Winter Term.—Latin Lessons—Jones. Elementary Philosophy—Avery. Arithmetic—Robinson. English Classics.

Spring Term.—Cæsar—Harkness or Greenough. Civil Government—Andrews. Composition and Rhetoric—Kellogg. English Classics.

Middle Year.

Fall Term—Cæsar—Harkness or Greenough. Latin Prose Composition—Jones. Greek Grammar—Goodwin. Ancient History—Swinton. English Classics.

Winter Term—Sallust—Harkness. Greek Lessons—White. Roman History—Swinton. English Classics.

Spring Term.—Cicero—Harkness. Anabasis—Goodwin. First Principles of Algebra—Olney. English Classics.

Senior Year.

Fall Term—Cicero—Harkness. Anabasis—Goodwin. University Algebra, Part I.—Olney. English Classics.

Winter Term.—Virgil—Greenough. Anabasis—Goodwin. Greek Prose Composition—Jones. University Algebra, Part II—Olney. English Classics.

Spring Term.—Virgil—Greenough. Iliad—Keep. Plane Geometry—Olney. English Classics.

II. SCIENTIFIC AND PHILOSOPHICAL.

Junior Year.

Fall Term.—Latin or Greek Grammar. U. S. History—Scudder. English Grammar—Reed and Kellogg.

Winter Term.—Latin (or Greek) Grammar. Elementary Philosophy—Avery. Arithmetic—Robinson.

Spring Term.—1st Cæsar (or 1st Anabasis). Civil Government—Andrews. First Principles of Algebra—Olney.

Senior Year.

Fall Term.—2d Cæsar (or 2d Anabasis). Latin Prose Composition—Jones. Ancient History—Swinton. University Algebra, Part 1—Olney.

Winter Term.—Sallust (or 3d Anabasis). Roman History—Swinton. University Algebra, Part II.—Olney.

Spring Term.—Cicero (or Greek Prose Composition). Composition and Rhetoric—Kellogg. Plane Geometry—Olney.

The class in Part I, Algebra, is conducted in the fall *and* winter terms.

Classes are formed each term in Arithmetic and English Grammar. Book-keeping, Penmanship, Elocution and Free-Hand Drawing are taught each term in other departments.

IV. NORMAL COURSE.

First Year.

Fall Term—English Grammar. Arithmetic. Reading and Orthography. Lectures on Teaching.

Winter Term.—English Grammar—continued. Advanced Arithmetic. Reading and Orthography. Geography.

Spring Term.—English Grammar—completed. Vocal Music. Penmanship. Reading and Orthography.

Second Year.

Fall Term.—Free Hand Drawing. United States History. First Principles of Algebra. Lectures on Teaching.

Winter Term.—Book-keeping. Sketching from Nature. University Algebra—Part I. Reading.

Spring Term.—Civil Government. Composition and Rhetoric. University Algebra—Part II. Reading.

Third Year.

Fall Term.—Inorganic Chemistry. Physical Geography. Lectures on Teaching.

Winter Term.—Organic Chemistry. Elementary Physics. English History.

Spring Term.—Botany—Preparation of Herbaria. Principles of Teaching. Mediæval History. Plane Geometry.

Fourth Year.

Fall Term.—Zoölogy—with Museum Work. Logic. Mental Philosophy.

Winter Term.—Human Anatomy and Physiology. Rhetoric. Political Science.

Spring Term.—Geology. English Literature. Moral Philosophy.

V. THEOLOGICAL DEPARTMENT.

COURSES OF INSTRUCTION.

English Course.

First Year.—English Literature, Logic, Rhetoric, Mental Philosophy, Moral Philosophy, Butler's Analogy. Lectures in Systematic Theology, as in Full Course.

Second Year.—Lectures in Systematic Theology as in Full Course, Exegesis of New Testament with use of English Version.

Third Year.—Same as in Full Course.

Full Course. Junior Year.

Greek Exegesis.—New Testament Grammar, Lectures on the Origin and Nature of New Testament, Greek, and kindred topics, Essays by the class on questions of Geography, Biography, etc., Exegesis of select portions of the New Testament.

Hebrew.—Hebrew Grammar, Exegesis of the Old Testament.

Systematic Theology.—Lectures four hours per week, on: Religion, True and False, The Knowledge of God and of His Existence, The Divine Attributes, The Evidences of Christianity and the Doctrine concerning Scripture, including the Canon, Authenticity and Inspiration.

Middle Year.

Systematic Theology.—Lectures: The Trinity, the Works of God, Free Agency, Sin and Depravity, the Government of God, The Person of Christ, Atonement, The Office of the Holy Spirit, Regeneration and Sanctification, Repentance, Faith, Prayer, Obedience, the Law, the Church, the Ordinances, the Sabbath, the Ministry, Resurrection, Judgment, Future Reward and Punishment.

Class Work.—Regular Review of the Lectures, Reading of assigned Authors on each Subject, and Preparation of Essays.

Hebrew.—Exegesis of portions of the Old Testament.

Greek.—Exegesis of select portions of the New Testament. Optional.

Senior Year.

Homiletics.—Lectures: The Nature of Preaching, Analysis of the Sermon, Construction of the Sermon, Rhetoric as applied to Preaching, the Delivery of the Sermon.

Class Work.—Essays on Assigned Topics, Plans of Sermons, Delivery of Sermons, and Criticism of Published Sermons.

Pastoral Theology.—Lectures: Qualifications for the Ministry, Pastoral Duties Private and Public, Revivals, Special Labors, and Ecclesiastical Relations.

Church History.—Ancient, Mediæval and Modern Church, History of Doctrine, History of Missions.

INFORMATION.

TERMS OF ADMISSION.

Candidates for admission to this department must furnish evidence of good standing in some Christian church, and must be properly qualified to pursue the studies with profit.

Those who have received the degree of A. B. will be admitted to the Full Theological Course without examination. Other candidates for this course must give evidence of proficiency in the following studies: Common English branches, Composition and Rhetoric, Natural Philosophy, Chemistry two terms, Botany, Zoölogy, Physiology, Geology,

Descriptive Astronomy, English Literature, Logic, Rhetoric, Mental Philosophy, Moral Philosophy, Butler's Analogy, and Greek, two years.

These studies are all taught in the various departments of the College, and students pursuing them by this requirement, are classed as Theological Preparatory.

Those who enter the English course must be prepared in English Grammar, Composition and Rhetoric, Geography, Arithmetic, and History of the United States.

Those who have only a common school education should usually spend not less than three years in preparation for the Full Theological Course. Students of the English Course may study the Greek and Hebrew, so far as they may be able, under direction of the Faculty.

Any person who does not wish to enter either course of study may, on advising with the Faculty, pursue any studies taught in the school.

VI. MUSIC DEPARTMENT.

COURSE OF INSTRUCTION.

Diplomas are granted to all who complete this course in a satisfactory manner.

The following is an outline of the course of study for the

PIANOFORTE.

First Grade.

Emery, op. 35. Foundation Studies.
Loeschhorn, op. 65. Book 1.
Koehler, op. 151.
Simple pieces for recreation.
Technical exercises from Plaidy, Koehler, etc.

The exercises of this grade are devoted mainly to the acquirement of a pure legato touch, with development of the wrist sufficient to secure a proper execution of the simpler rondo forms, and smaller pieces for recreation. The fingering of major scales is to be learned, with practice in the most common major keys.

Second Grade.

Koehler, op. 50.
Loeschhorn, op. 65. Books 2 and 3.
Czerny, op. 636.
Heller, op. 47.
Emery, op. 37. Fundamental Technique.
Sonatas by Clementi, Kuhlau, Dussek, Lichner, etc.

In this grade the minor scales are to be learned, and the major scales constantly practiced with accents. Arpeggios on major and minor common chords are to be studied, with accents. A knowledge of the principal modifications of the legato and staccato touch must be acquired.

Third Grade.

Loeschhorn, op. 66. Books 1, 2 and 3.
Heller, op. 46. Books 1 and 2.
Koehler, op. 128. Book 1.
Heller, op. 45.
Bach. Preludes.
Emery. Elements of Harmony, *commenced.*

Easier Sonatas of Clementi, Hayden, Mozart, and Beethoven.

Sonatas and pieces for four hands by Diabelli and others.

Exercises in this grade comprise major and minor scales in octaves; sixths and tenths, with accents; also four forms of arpeggio, including the chords of the dominant and diminished seventh. Different forms of staccato touch are to be practiced, and special attention will be given to the cantabile style, with appropriate selections for illustration.

Fourth Grade.

Cramer's Etudes, *through the grade.*

Loeschhorn, op. 67.

Heller, op. 16, or Jensen, op. 32.

Bach. Inventions.

Kullak, op. 48. Octave School, *commenced.*

Emery. Elements of Harmony, *completed.*

Mendelssohn's Songs without words.

Sonatas by Mozart and Beethoven.

Selections from Mendelssohn, Chopin, Schumann, etc.

Salon pieces in modern style.

Scales in double thirds and sixths, with practice of octaves and trills.

Arpeggios in extended positions.

Reading at sight four hand arrangements of Hayden's Symphonies, and others.

Fifth Grade.

Kullak's Octave School, *completed.*

Selections from Clementi's Gradus ad Parnassum.

" " Moscheles, op. 70, or 73.

" " Chopin, op. 10.

Selections appropriate to this grade from Beethoven, Mendelssohn, Chopin, Weber and others.

Franklin Taylor's "Primer of Pinaforte Playing," for reference, throughout the course.

Pauer's Musical Forms and Fillmore's History of Pinaforte Music to be read.

The course in Harmony requires at least four terms for its completion. It is commenced with the Fall term of each year.

Pupils' recitals are held weekly, in which each is expected to participate.

CULTIVATION OF THE VOICE.

The course includes the following studies:

Rondinella, op. 76. Exercises in Vocalization.

Bonaldi. Exercises.

Marchesi. Two books.

Savinelli, Vocalizes. Two books.

Sieber. Etudes.

Wieck. Etudes.

Panofka, Etudes.

Bordogni. Etudes in Bravura.

In the study of Voice Culture, attention is given to the following points:

1. A correct position of the body.
2. Freedom of the chest, and the true action.

3. Striving to gain a quiet open throat or pharynx.
4. True position, and control of the larynx.
5. The tongue and epiglottis, their connection and hindrance of tone outflow.
6. The mouth, as receiver, mould, and resonator.
7. Tone waves, condensation, direction and movements.
8. Tone form and concentration.
9. Chest vibrations, how secured.
10. Head tones, their reflection and qualification.
11. Equalizing the entire range.
12. Flexibility, the life of a good voice.
13. Vowels and Consonants, their elements and proper formation.

The system used in elementary classes is the syllable and interval method, giving special attention to the chief tones in the major and minor keys, and the correct treatment of words and syllables.

A complete development of the voice at this college requires from three to five years. While much can be done by those of mature age in one year, it is well for those who wish to secure a fine voice, with the utmost purity of tone, and placed under perfect control, to study at least three years, and if possible five. Voices that have been injured may, if possible, be restored by study in this school, as our teacher has had considerable experience with such cases. In addition to singing classes of different grades, a teachers' and conductors' class is maintained, under the personal supervision and direction of the vocal teacher.

Those who are qualified for the study of Oratorios, Masses, and the higher grades of Glee and Church Music, find in the rehersals of the Beethoven Society opportunity for constant improvement. The library of this society contains a valuable and varied selection of the best choral music, and is one of the largest collections in the State.

VII .ART DEPARTMENT.

In accordance with a resolution passed by the Board of Trustees, at their annual meeting in June, 1883, a course of instruction in Art, consisting of four years' study, has been arranged, upon satisfactory completion of which the College will grant a diploma to graduates.

The studies of the first year in course are designed more especially to meet the wants of drawing teachers in the public schools of our country, and to lay a solid foundation for those who intend to enter the professions of engineering, architecture, designing, etc., perspective being part of the first year's course. Certificates will be given to those who complete this part of the Art course.

COURSE OF INSTRUCTION.

First Year.

Fall Term.—Elementary Principles of Drawing and Perspective.

Winter Term.—Drawing from objects, casts and nature; Perspective completed.

Spring Term.—Sketching and Drawing from nature and life exclusively.

Second Year.

Sketching in Pencil, Charcoal and Crayon; India Ink and Water Color painting.

Third Year.

Painting in Oil from original works, and studies from nature; Charcoal and Crayon drawing; Sketching from life and nature.

Fourth Year.

Painting from life and nature exclusively; Charcoal and Crayon studies continued. Lectures on Art and Artists and the History of Ancient and Modern Art.

It is desirable that students entering this Department shall be in possession of a good English education, in addition to which a knowledge of modern and ancient languages is deemed highly valuable, while the history of ancient and modern Art, anatomy, zoölogy, botany, chemistry, geology and mineralogy should receive the most earnest attention of the Art student.

Energetic and strong students who devote their whole time to the work usually complete the studies of the first two years in one.

The one year's course in Drawing and Perspective, is free to all matriculated students of the College.

Expenses for instruction, outside of Drawing and Perspective, are about one hundred dollars per year.

Students who have already acquired artistic proficiency may, upon examination, enter the Art course at any part for which they are prepared.

VIII. COMMERCIAL AND TELEGRAPHIC DEPARTMENT.

The course is divided into three divisions, as follows:

FIRST DIVISION.

Day-book. Journal. Ledger. Trial Balance. Analysis. Commercial Law—Clark. Commercial Paper. Commercial Arithmetic—Sadler. Penmanship. Political Economy—Perry.

SECOND DIVISION.

Full Journal. Cash Book, Special Column Journal. Commission Sales Book. Executors' and Administrators' Accounts. Consignments. Changing Sets of Stock and Partnership Books from Double to Single Entry. Shipments. Changing Sets of Stock Books from Single to Double Entry. Changing Sets of Partnership Books from Single to Double Entry. Commercial Paper. Correspondence. Commercial Law. Political Economy. Commercial Arithmetic. Penmanship.

THIRD DIVISION.

Compound Company Accounts, Half System. Compound Company Accounts, Whole System. Railroading. Steamboating. Banking. Brokerage. Life Insurance. Fire Insurance. Penmanship. Commercial Arithmetic. Political Economy. Commercial Law.

TELEGRAPHY.

Practical Telegraphy is taught by the Principal—a sound operator—aided by practical assistants.

CONCLUSION.

The College is well furnished with libraries, museums, apparatus, etc., to which has lately been added a new and well equipped gymnasium. The College property is valued at $150,000, including a beautiful campus and six commodious buildings. The amount of endowment actually in hand is $150,000. The College is free from debt.

GEORGE F. MOSHER,
President.

HOPE COLLEGE.

REPORT OF THE PRESIDENT.

HON. THEODORE NELSON,
Superintendent of Public Instruction:

SIR,—Herewith I present the report of Hope college, at Holland, for the year ending June 30th, 1886:

THE PRESIDENCY.

After serving for six years as acting or provisional president, Prof. Charles Scott was duly inaugurated into that office on the evening of June 21st, 1886. A brick residence for the president of the college was begun on the campus in May, and will be completed during the coming year.

THE COUNCIL.

Rev. Charles Scott, D. D., President of the college, *ex officio.*

Term Expiring in 1887.

J. C. Benham, M. D., Hudson, N. Y.
Rev. B. Van Ess, Roseland, Ill.
Rev. John H. Karsten, Holland, Mich.

Term Expiring in 1888.

Rev. Wm. J. R. Taylor, D. D., Newark, N. J.
Rev. Peter Moerdyke, Grand Rapids, Mich.
Rev. Thomas W. Jones, Holland, Mich.

Term Expiring in 1889.

Rev. Giles H. Mandeville, D. D., New York City.
Rev. Nicholas H. Dosker, Kalamazoo, Mich.
Rev. Henry E. Dosker, Grand Haven, Mich.

Term Expiring in 1890.

Rev. James F. Zwemer, Waupum, Wis.
Rev. Peter Lepeltak, Overisel, Mich.
Rev. Dirk Broek, Holland, Mich.

Term Expiring in 1891.

Isaac Cappon, Esq., Holland, Mich.
Rev. Ale Buursma, Orange City, Ia.
Rev. Lawrence Dykstra, Orange City, Ia.

Term Expiring in 1892.

Arend Visscher, Esq., Holland, Mich.
Rev. Wm. H. Phraner, Irving Park, Ill.
Rev. S. L. Gamble, Pekin, Ill.

OFFICERS OF THE BOARD.

President—Rev. P. Lepeltak.
Vice President—Rev. T. W. Jones.
Secretary—Rev. Peter Moerdyke.
Treasurer—Isaac Cappon, Esq.
Executive Committee—Rev. Chas. Scott, *ex officio*; Rev. Dirk Broek, secretary; Rev. Peter Moerdyke, Rev. Thomas W. Jones, and Isaac Cappon, Esq.

The council meets regularly in April and in June. The executive committee every month. There are standing committees on investments, real estate, etc.

THE THEOLOGICAL DEPARTMENT

is now known as the "Western Theological Seminary of the Reformed Church in America," but remains as a part of the college corporation. By the last general synod, in June, 1886, it was placed under the care of a separate "Board of Superintendents," consisting of fourteen members, of which the president of the college is one, *ex officio*, and was made president thereof for the current year. The instructors are: Rev. M. N. Steffins, D. D., professor of systematic theology, teacher of Hebrew and Homiletics; Rev. Peter Moerdyke, lector in Greek, Exegesis, and Archaeology; Rev. Henry E. Dosker, lector in Sacred and Church History.

In June, 1885, Rev. Daniel Van Pelt of East New York, N. Y., was elected professor of Oriental Languages, but declined the appointment.

The Theological course is for three years, and the number of students in 1885–86, eight (8). Much importance is attached to this seminary, for pastoral training at the West, and efforts will be continued until it shall be suitably endowed and manned.

THE ACADEMIC DEPARTMENT

is hereafter to be known as the "College" Department, and the classes somewhat increased in size.

1. The Faculty

has not changed since my last report, and consists of seven professors and no tutors. Those branches of study assigned to each also remain the same.

2. The Students.

Seniors, 6; Juniors, 7; Sophmores, 7; Freshmen, 11; total 31. The degree

of A. B. has been conferred on six; that of A. M. upon eight. Total number of graduates since 1866, one hundred and twenty.

3. Course of Study.

This also remains essentially as published in your report of 1884 and 1885. Measures, however, are being inaugurated for more extended scientific instruction.

THE PREPARATORY DEPARTMENT.

is to be the "Grammar School" department.

1. The Faculty

has not changed. Religious instruction and singing are in charge of the regular teachers.

2. Students.

A Class, 19; B Class, 32; C class, 36; D class, 27; total, 114; and these added to those in the other departments, make 153 in the Insitution.

3. Course of Study.

Again I would refer to the report of last year, or of 1884. The branches of study are unchanged.

FINANCES.

1. *Contingent Fund.*

Receipts.

Balance on hand, April, 1886	$84 14
Interest from invested funds	4,904 86
Rents from real estate	162 36
Students' fees	2,056 00
Donations	3,519 81
Miscellaneous	785 23
Total	$11,512 40

Expenses.

Salaries of Teachers and Janitors	$8,763 85
Meetings of the Council and the Treasury	339 45
Fuel and light	113 75
School requisites and printing	187 40
Buildings and grounds	789 78
Care of real estate and taxes	355 22
Transferred to other funds	162 82
Sundries	185 55
Balance on hand	614 58
Total	$11,512 40

2. *Permanent Fund.*

Receipts.

By sale of real estate	$4,426 00
From other sources	1,079 08
Total	$5,505 08

Which has been invested on mortgage.

3. *Amount of Funds.*

Held in trust by the General Synod (R. C. A.)	$34,074 95
And by the same for Theology	30,000 05
Investments held by the Council	25,814 70
Notes paying interest in part	20,185 30
Employed in the Printing office	9,000 00
Total	$119,074 95

4. *Real Estate.*

Value of the campus and buildings	$35,000 00
City lots for sale estimated at	8,000 00
Lands at Point Superior, (617 acres) estimated	9,000 00
Total	$52,000 00

LIBRARY.

The library fund is small, only sufficing for the care of the library and reading room. As usual, donations in books, etc., have been continued during the year. A larger and better library room is being fitted up. One hundred bound volumes have been added, making the whole number about 6,500. For the use of the library no charge is made.

INFORMATION.

The new building for recitations has not yet been begun, nor have the needed funds been secured. The buildings we have are being improved from year to year. All the expenses at Hope are kept as moderate as possible. The fees are only $15 per annum, and the board, rooms, washing, fuel and lights need not cost more than $110–$125. The students maintain studious habits and a good moral deportment, and their surroundings in Holland are favorable to the development of their better and higher nature. As will be seen above, the college continues to grow in size and usefulness, and is destined to fill an important place among the institutions of Western Michigan.

DE HOPE.

The college newspaper called De Hope is now published by R. Kanters, Esq., of Holland, under the editorial supervision of Mr. G. Schelven.

CONCLUDING NOTE.

The receipts and expenses, given in this report, do not include the amount of $2,500, both received and expended for the theological school, making a total of $14,012.40.

Respectfully submitted,

CHARLES SCOTT,
President.

KALAMAZOO COLLEGE.

REPORT OF THE PRESIDENT.

HON. THEODORE NELSON,

Superintendent of Public Instruction:

SIR,—In compliance with the requirements of law, I submit the following report concerning Kalamazoo College for the year ending June 16, 1886.

The work of the College was prosecuted during the year with vigor and the usual success.

The members of the Faculty and other officers were as follows:

Rev. Kendall Brooks, D. D., President and Professor of Moral and Intellectual Philosophy.

Rev. Samuel Brooks, D. D., Professor of the Latin Language and Literature.

Jabez Montgomery, Ph. D., Professor of Natural Sciences.

Alexander Hadlock, Ph. M., Professor of Mathematics.

Francis D. Haskell, A. M., Professor of the Greek Language and Literature.

Miss Marion A. Chase, Instructor in History.

Clara P. Anderson, B. S., Instructor in French.

Helen M. Brooks, Ph. B., Instructor in Painting and Drawing.

Prof. Samuel Brooks, Librarian.

Mr. W. E. Power, Janitor.

The number of students was as follows:

Seniors	5	
Juniors	5	
Sophomores	7	
Freshmen	12	
Pursuing Select Studies	19	48
Preparatory Students		96
		144
Young Men		87
Young Women		57
		144

There are three courses of instruction, each extending through four years.

1. The Classical Course, leading to the degree of Bachelor of Arts.

2. The Latin-Scientific Course, leading to the degree of Bachelor of Philosophy.

3. The Scientific Course, leading to the degree of Bachelor of Science.

The following schedule includes all the studies, both prescribed and elective, in all the courses. Required studies in the Classical Course are marked (*a*); in the Latin-Scientific

Course, (*b*); in the Scientific Course (*c*). Besides these each student must select for each term, a sufficient number of studies to make up together with those which are required, three daily recitations in addition to his rhetorical exercises. But no student will be allowed to pursue more than three studies at the same time, in addition to his rhetorical work, except by special permission of the Faculty, granted on the student's written request.

In the Latin-Scientific Course, Greek may be substituted for Latin.

FRESHMAN YEAR.

1. *Greek*—Homer's Iliad, books II–VI. Selected Orations of Lysias. Selections from the Greek Historians. (*a*).

2. *Latin*—Cicero de Senectute and de Amicitia. Livy. The Odes of Horace. (*a*) (*b*).

3. *Mathematics*—Olney's Plane and Spherical Trigonometry. Olney's University Algebra, Part III. Olney's Advanced Geometry. (*a*) (*b*) (*c*).

4. *History*—England from the Accession of Henry IV to the death of Elizabeth. England during the reign of the Stuarts; also leading events in the history of France and Germany during this period. England from the reign of the Stuarts to the present time. Text-book, Green's History of the English Poeople. (*b*) (*c*).

5. *Biology*--Packard's Zoölogy and Gray's Structural Botany. This work will be a study of life as manifested in both plants and animals, and will combine text-book and laboratory work. (*c*).

SOPHOMORE YEAR.

1. *Greek and Latin*—The Œdipus Tyrannus, or the Antigone, of Sophocles. Second Term. (*a*). The Satires and Epistles of Horace. Third Term. (*a*) (*b*).

2. *Mathematics*—Olney's General Geometry. First Term. (*a*) (*b*) (*c*). Olney's Calculus. Second Term, (*b*) (*c*). Olney's General Geometry. Third Term. (*c*).

3. *French*—Grammar, Modern French Literature, Corneille and Racine. (*a*).

4. *French*—Literature of the seventeenth and eighteenth centuries : Moliere, Bossuet, Madame de Sevigne, etc., Essays and Dictation. (*b*) (*c*). In this department the aim is to give the student a practical knowledge of the French language and literature. Special attention is paid to pronunciation and to the study of the best French authors.

5. *Literature*—Arnold's English Literature. Lectures upon English authors of the nineteenth century and upon American Literature. In this department the students are required to make the text-book a basis of work and to study the authors carefully for themselves. Lectures are given frequently during the third term by the teacher, and students are required to write essays each term.

The students of each course are required to take Literature the first term,—those of the Latin-Scientific and Scientific courses, the second term, and those of the Scientific course the third term.

JUNIOR YEAR.

I. *Greek and Latin*—The Prometheus of Æschylus, or one of the Comedies of Aristophanes. (*a*). The Germania and Agricola of Tacitus, or Juvenal. (*a*) (*b*).

2. *German*—Continued through the year. (*b*) (*c*).

3. *Chemistry*—Barker's Chemistry. General Chemistry, first term. (*a*) (*b*) (*c*). Applied Chemistry, second term. (*c*).

4. *Natural Philosophy*—Olmsted's College Philosophy, Kimball's edition. Mechanics, first term. Physics, second term. (*a*) (*b*) (*c*).

5. *Geology*—Dana's Text-Book. Third Term. (*a*) (*b*) (*c*).

6. *Surveying*—Schuyler's Surveying. Third Term. (*c*). In surveying the student will have practical work.

SENIOR YEAR.

1. *Greek and Latin*—Demosthenes on the Crown, or Plato's Apology, and selections from the New Testament. First Term. Frieze's Quintilian or Seneca. Second Term.

2. *Philosophy*—Porter's Intellectual Science. Calderwood's Moral Philosophy. The History of Philosophy. (*a*) (*b*) (*c*).

3. Hill's Natural Sources of Theology and Diman's Theistic Argument. Jevons's Logic. Hopkins's Evidences of Christianity, and Storr's Divine Origin of Christianity. (*a*) (*b*) (*c*).

4. Loomis's Astronomy. First Term. (*a*) (*b*) (*c*).

5. A. S. Hill's Principles of Rhetoric. Second Term. (*c*).

6. Gregory's Political Economy. Third Term. (*c*).

Rhetorical Exercises are required of all students, as follows:

During the Freshman and Sophomore years, declamations and essays.

During the Junior and Senior years, orations and essays.

The Preparatory Department offers three courses of Instruction:

1. The Classical Course.
2. The Latin-Scientific Course.
3. The Scientific Course.

Each of these courses is preparatory to the corresponding course in the College. In the following schedule the studies of the Classical Course are designated by (*a*); those of the Latin-Scientific Course, by (*b*); and those of the Scientific Course, by (*c*). Greek may be substituted for Latin in the Latin-Scientific Course.

FIRST YEAR.

1. *Latin*—Harkness's Latin Grammar, Jones's Latin Lessons, Four Books of Cæsar's Commentaries, Jones's Exercises in Latin Prose Composition. (*a*) (*b*). The work prescribed for this year is equivalent to that usually required for two daily recitations throughout the year, and during a part of the time the class recites twice a day. Students in Latin are therefore expected to take for the first year only one additional study.

2. *Arithmetic*—Wentworth and Hill's Arithmetic. First and Second Terms. (*c*).

3. *Grammar*—Swinton's English Grammar. First and Second Terms. Swinton's English Composition. Third Term. (*c*). D. J. Hill's Elements of Rhetoric. Third Term. (*a*) (*b*).

4. Steele's Physiology. First Term. Guyot's Physical Geography. Second Term. (*a*) (*b*) (*c*).

5. Civil Government—Young's Government Class Book. Third Term. (*b*) (*c*).

6. Botany—Gray's Lesson's. Third Term. (*c*).

SECOND YEAR.

1. *Greek*—Harkness's First Greek Book, with Hadley and Allen's New Greek Grammar; Xenophon's Anabasis. (*a*).

2. *Latin*—Six Orations of Cicero, and twenty-five hundred lines of Ovid, with special attention to Prosody. (*a*) (*b*).

3. *Algebra*—Olney's Complete Algebra. (*a*) (*b*) (*c*).

4. *History*—Swinton's Outlines of the World's History. (*b*) (*c*).

5. *Natural Philosophy*—Avery's First Principles. First and Second Terms. Chemistry, Cooley's. Third Term.

THIRD YEAR.

1. *Greek*—Xenophon's Anabasis, with Jones's Exercises in Greek Prose Composition, Smith's Smaller History of Greece, Homer's Iliad, Book I. (*a*).

2. *Latin*—Six books of Virgil's Æneid, and Roman History. By the constant use of wall maps as well as by means of a text book, the student is made familiar with ancient geography. The method of pronunciation in use is the Roman. (*a*) (*b*).

3. *Geometry*—Olney's New Elementary Geometry, Plane and Solid. (*a*) (*b*) (*c*).

4. *French*—French Principia, Part I. French Reader, Dictation, and Grammatical Exercises, Contemporary French Literature. (*b*) (*c*).

5. *Astronomy*—Gillet and Rolfe. First Term. Botany. Gray's Lessons, and Manual. Third Term. (*c*).

6. *Book-Keeping*—Nichols's Practical Book-Keeping. Second Term. (*c*).

Weekly exercises in reading are continued through the three years, and declamations and essays are required each term.

The endowment of the College is $115,171.10,* including as a part of it several items as follows:

The Kalamazoo Professorship fund	$20,067 71
The Merrill Professorship Fund	10,000 00
The Alumni Professorship Fund	5,259 74
The Edward Israel Instructorship Fund	3,000 00
The Taft Fund (for students)	2,520 00
The Axtell Fund (for students)	1,000 00
The Sherwood Prize Fund	250 00
The Cooper Prize Fund	250 00

The generosity of many friends added a considerable sum to the endowment during the year, besides providing for a debt of long standing.

In addition to the above endowment, the real estate is estimated to be worth $100,000.

Respectfully submitted,

KENDALL BROOKS,

President.

VISITORS' REPORT.

HON. THEODORE NELSON,

Superintendent Public Instruction.

DEAR SIR,—The undersigned committee appointed to visit Kalamazoo College during the academic year 1885-6, beg leave to submit the following report:

The College was visited by the different members of the committee both during the regular term work, and again at the commencement exercises. The work of both professors and students was found to be painstaking and thorough. The instructors are earnest, conscientious, and, for the most part, thoroughly competent; but in several departments, notably the chemical and philosophic, there is a lack of apparatus and appliances that seriously interferes with the work attempted. It is possible, however,

*This is all in the hands of the Treasurer in notes, bonds and mortgages, and such real estate as has come into his possession through the foreclosure of mortgages.

that in one or two instances, a greater care for the property available would help solve the problem of deficiency.

While the work and influence of the College have been crippled throughout for the want of adequate endowment, the past year has witnessed an advance all along the line. The endowment has been increased $50,000; the main dormitory extensively repaired; and in process of erection, which it is hoped will be available at the beginning of another year, is a substantial building designed for a ladies' dormitory and boarding hall, which will add greatly to the capacity and efficiency of the College.

The Board of Trustees, at its last meeting, adopted measures looking to the more enthusiastic prosecution of the College work, the most important item being the election of I. W. Goodspeed, D. D., Chicago, to the Presidency.

Respectfully submitted,

C. E. HARRIS,
G. A. OSINGA,
GEO. F. HUNTING,
Board of Visitors.

MICHIGAN FEMALE SEMINARY.

VISITORS' REPORT.

HON. THEODORE NELSON,
Superintendent of Public Instruction:

SIR,—The committee appointed to visit the Michigan Female Seminary at Kalamazoo, spent portions of the 16th, 17th and 18th of February at the institution, and take pleasure in submitting the following report:

The four years' course includes the branches usually taught in Seminaries, with more than the usual amount of the study of the Bible. We thought the instruction very good, and were pleased with the interest shown by the classes. Among the pleasantest features were the friendly relations which seemed to exist between teachers and pupils, and the cheerful, homelike air that pervaded all departments.

The school is conducted on the plan of Mt. Holyoke Seminary in Massachusetts, each pupil being required to spend one hour a day in household work. The object is not to train housekeepers, but to reduce the expense of board and tuition. That it is effectual in accomplishing this may be seen by a glance at the catalogue, which makes us wonder how so many advantages can be given for so small a sum. We saw the young ladies after the evening meal clearing tables and washing dishes. Many hands made light work, and merry company relieved it of all appearance of drudgery; and, although instruction in housework is not promised, we judged that the occupation must be a help toward establishing the habits of neatness and order which are so necessary in domestic affairs. It is probably true also that the moderate exercise is a desirable interruption to the common sedentary habits of school girls. In our opinion, however, the ladies in charge have occasion to guard their pupils from excess rather than from lack of exercise. With housework, gymnastics, daily exercise in the open air, an occasional walk to and from the city, including the climbing of a long hill and steep flight of stairs, to say nothing of the four floors of the building, which must all be visited at times, the young girls are not likely to lose the power of locomotion by disuse of the apparatus. Proper physical exercise no doubt promotes health, and it is only to the constant, monotonous climbing that we object. It is a misfortune that the building was made so high, and this construction seems quite unnecessary in view of the thirty-two acres of charming wood-land which are the property of the school. We are glad to admit that our fears are not caused by any appearance of ill-health or over-work in the young people that we met, and we understand from the acting principal that the fourth story of the building

is used as little as possible. This is we believe a wise and necessary precaution, and it is to be hoped that future additions to the building will be made in the direction of its length or breadth, and if possible at the expense of its height.

The site of the school is delightful, the prospect from the windows refreshing, and the extensive grounds are capable of being made very attractive.

The institution is at present on a very satisfactory financial basis, having recently received an endowment of forty thousand dollars. This has already resulted in the introduction of a steam heating apparatus, and will doubtless be the source of other improvements. The prospects are in every way encouraging, and we may reasonably expect what we so heartily wish for this school, a long future of continued and increasing usefulness.

Very respectfully,

HARRIET V. BROOKS,
HATTIE I. WELLS,
ANNA B. JONES,
Visitors.

April, 1886.

MICHIGAN MILITARY ACADEMY.

REPORT OF THE PRESIDENT.

HON. THEODORE NELSON,
Superintendent of Public Instruction:

SIR,—I have the honor to submit the following report of the Michigan Military Academy, for the year ending June 17, 1886.

This Institution has had a year of marked prosperity. The graduating class numbered nineteen, it being the largest in the history of the school.

A manual training department has been added in which the senior and junior classes receive instruction. An engineer officer of the navy, who has been detailed by the Secretary of the Navy for duty in this Academy, has charge of this department.

It is not expected that this course will make skilled mechanics of the students, but that it will give them an idea of the nature of wood and metals and the manner of working them, such as will be of service in whatever pursuit they may hereafter follow.

In the wood working shop are taught the uses of the saw, plane and other hand tools found in such a shop, and the general priciples of wood turning. A metal working shop has been fitted up, in which the students are instructed in chipping, and in finishing and fitting work with the file. Instruction is also given in turning and other machine operations.

During the last two months in the senior year the class in physics spend their time in the shop, constructing electric bells, telephones, microphones, and other electrical apparatus.

It is the intention to direct all the shop work towards the construction of electrical appliances, and to introduce a separate course in electrical training and cognate subjects. The shop facilities will be increased, and testing instruments provided, so that thorough instruction may be given in electricity, both theoretical and practical. The course has proven to be a very popular one among the students.

ACADEMIC STAFF.

Col. J. Sumner Rogers, Superintendent.
William H. Butts, A. M., Principal.
Thomas Bertrand Bronson, A. B., Modern Languages.
Delos Dan Jayne, B. S., History and Literature.
Lieut. Frederick S. Strong, 4th U. S. Artillery.

MILITARY SCIENCE AND TACTICS.

Assistant Engr., Andrew M. Hunt, U. S. Navy.

SCIENCE AND MANUAL TRAINING.

Wilson G. S. Lowe, C. E., Mathematics and English.
Ernest B. Sangree, A. B., Rhetoric and elocution.
Samuel F. Hawley, Ph. B., Latin.

The number of students or pupils in the several departments, and in the diffierent classes:

Post-Graduates	2	Third Class	28
First Class	22	Fourth Class	35
Second Class	15	Preparatory	24

SUMMARY BY STATES.

Michigan	61	California	1
Illinois	19	Colorado	1
Ohio	12	Connecticut	1
Iowa	5	District of Columbia	1
Wisconsin	4	Maine	1
Indiana	3	Ontario	1
Missouri	3	Texas	1
New York	3	Utah Territory	1
Wyoming Territory	3	Washington Territory	1
Oregon	2		
U. S. of Columbia	2	Total	126

ACADEMY COURSE OF STUDY.

PREPARATORY YEAR.

First Term.

English—Whitney's Elementary Lessons in English.
Mathematics—Olney's Practical Arithmetic, to Percentage.
History—Barnes's U. S. History.
Elocution—Expressive Reading.
Spelling—Hazen's Complete Speller.

FOURTH CLASS.

First Term.

English—Whitney's Essentials of English Grammar, finished.
Mathematics—Olney's Elements of Algebra.
History—Barnes's General History, Roman and Grecian.
Elocution—Declamations and Expressive Reading.

Second Term.

Mathematics—Arithmetic reviewed.
History—Barnes's General History, Mediæval and Modern.
Civil Government—Young's Government Class Book.
Elocution—Declamations and Expressive Reading.

THIRD CLASS.

First Term.

English—Analysis, Punctuation and Composition. Irving's Sketch Book.
Mathematics—Olney's Complete School Algebra.
Science—Dalton's Physiology.
Elocution—Declamations and Vocal Culture.
Essays—Two Historical or Biographical Essays, 400 to 600 words.

Second Term.

English—Kellogg's Rhetoric. Academy Orthœpist. Evangeline. Lady of the Lake.
Mathematics—Olney's Complete School Algebra, reviewed.
Science—Gray's School and Field Book of Botany, with written analysis of fifty plants.
Elocution—Declamations and Vocal Culture.
Essays—Two Historical or Biographical Essays, 400 to 600 words.

SECOND CLASS.

First Term.

English—Kellogg's and Taine's Literature. Shakspere's Plays, Poems and Essays, selected.
Mathematics—Olney's Geometry, ten sections.
Science—Maury's Physical Geography, or Avery's Chemistry.
Elocution—Declamations and Vocal Culture.
Essays—Two Literary or Critical Essays, 400 to 600 words.

Second Term.

Mathematics—Olney's Geometry, finished. Algebra, reviewed.
History—Lancaster's and Green's Histories of England.
Science—Dana's Geology, or Orton's Zoölogy.
Elocution—Declamations and Vocal Culture.
Essays—Two Literary or Critical Essays, 400 to 600 words.

FIRST CLASS.

First Term.

Science—Gage's Physics. Dynamics, Heat, Electricity, and Magnetism.
Political Economy—Perry's Introduction. Jevon's Money.
Language—Latin, German, or French, as in Latin Course.
Oration—Not to exceed 700 words.

Second Term.

Science—Gage's Physics. Sound, Light, and Experimental Work.
Law—Cooley's Principles of Constitutional Law, Clark's Commercial Law.
English—Dowden's Shakspere Primer. Masterpieces, selected.
Language—Latin German, or French, as in Latin Course.
Oration—Not to exceed 700 words.

CLASSICAL COURSE.

FOURTH CLASS.

First Term.

Language—Jones's Latin Lessons, begun.
History—Barnes's U. S. History.
English—Analysis, Punctuation, and Composition. Irving's Sketch Book.
Elocution—Declamations and Expressive Reading.

Second Term.

Language—Jones's Latin Lessons, finished.
History—Barnes's General History. Mediæval and Modern.
English—Kellogg's Rhetoric. Academic Orthoepist. Evangeline. Lady of the Lake.
Elocution.—Declamations and Expressive Readings.

THIRD CLASS.

First Term.

Language—Harkness's Cæsar, Gallic War, Books I., II.
Science—Maury's Physical Geography.
Mathematics—Olney's Elements of Algebra.
Elocution—Declamations and Vocal Culture.
Essays—Two Historical or Biographical Essays, 400 to 600 words.

Second Term.

Language—Harkness's Cæsar, Gallic War, Books III., IV. Harkness' Cicero, one oration.
History.—Leighton's Roman History, Ginn and Heath's Classical Atlas.
Mathematics—Arithmetic, reviewed.
Elocution—Declamations and Vocal Culture.
Essays—Two Historical or Biographical Essays, 400 to 600 words.

SECOND CLASS

First Term.

Language—Harkness's Cicero, three orations. Jones' Latin Prose, Lessons I.-XX.
Language—Keep's Greek Lessons, begun.
Mathematics—Olney's Complete School Algebra.
Elocution—Declamations and Vocal Culture.
Essays—Two Literary or Critical Essays, 400 to 600 words.

Second Term.

Language—Harkness's Cicero, two orations. Allen and Greenough's Ovid, 1,200 lines. Jones's Latin Prose, Lessons XX.-XL.
Language—Keep's Greek Lessons, finished. Boise's Xenophon, Anabasis, five chapters.
Mathematics—Olney's Complete School Algebra.
Elocution—Declamations and Vocal Culture.
Essays—Two Critical or Literary Essays, 400 to 600 words.

FIRST CLASS.

First Term.

Language—Frieze's Virgil, Æneid, books I-IV.

Language—Boise's Xenophon, Anabasis, Smith's History of Greece, Books I-IV.

Mathematics—Olney's Geometry, ten sections.

Oration—Not to exceed 700 words.

Second Term.

Language—Frieze's Virgil, Æneid, books V-X.

Language—Boise's Xenophon, Anabasis, to Book IV. Jones's Greek Prose Composition.

Mathematics—Olney's Geometry, finished. Olney's Complete School Algebra, reviewed.

Oration—Not to exceed 700 words.

LATIN COURSE.

FOURTH CLASS.

Same as in Classical course.

THIRD CLASS.

Same as in Classical course.

SECOND CLASS.

First Term.

Language—Latin, same as in Classical course.

Language—French Grammar. Verbs. English into French. Conversation in French. Or German Grammar. Studien und Plaudereien, first series. English into German. Conversation in German.

Mathematics—Same as in Classical course.

Elocution—Same as in Classical course.

Essays—Same as in Classical course.

Second Term.

Language—Latin, same as in Classical course.

Language—French Grammar, reviewed. Verbs, finished. Etude Progressive de la Langue Francaise. English into French. Conversation in French. Hennequin's Reader. L'Ami Fritz. Or, German Grammar, reviewed. Reader, 125 pages. Short Novel. English into German. Conversation in German.

Mathematics—Same as in Classical course.

Elocution—Same as in Classical course.

Essays—Same as in Classical course.

FIRST CLASS.

First Term.

Language—Latin, same as Classical course.

Language—French Grammar and Verbs, reviewed. Madame Therese (or equivalent). English into French. Conversation in French. Or, German Grammar, reviewed. Short Plays. Wilhelm Tell (or equivalent). English into German. Conversation in German.

Mathematics—Same as in Classical course.

Oration—Same as in Classical course.

Second Term.

Language—Same as in Classical Course.

Language—Borel's Grammaire Francaise. Cours de Themes, 70 pages. Modern French Plays. General Review. Or, Iphigenie auf Tauris (or equivalent). Faust, 1. Theil.

Mathématics—Same as in Classical course.

Oration—Same as in Classical course.

SCIENTIFIC COURSE.

Fourth Class.

Same as in Academy course.

Third Class.

Same as in Academy course.

SECOND CLASS.

First Term.

Mathematics—Same as in Academy course.

Language—French and German, French and Latin, or German and Latin, as in Latin course.

Elocution—Same as in Academy course.

Essays—Same as in Academy course.

Second Term.

Mathematics—Same as in Academy course.

Language—French and German, French and Latin, or German and Latin, as in Latin course.

Elocution—Same as in Academy course.

Essays—Same as in Academy course.

FIRST CLASS.

First Term.

Science—Same as in Academy course.

Language—French and German, French and Latin, or German and Latin, as in Latin course.

Elocution—Same as in Academy course.

Oration—Same as in Academy course.

Second Term.

Science—Same as in Academy course.

Language—French and German, French and Latin, or German and Latin, as in Latin Course.

Elocution—Same as in Academy course.

Oration—Same as in Academy course.

TEXT BOOKS

Latin Grammar—Harkness.
Latin Lessons—Jones.
Latin Prose Composition—Jones.
Cæsar—Harkness.

Cicero—Harkness.
Ovid—Allen and Greenough.
Virgil—Frieze.
Latin-English Dictionary—White.
Classical Dictionary—Smith.
Dictionary of Antiquities—Anthon.
Greek Grammar—Hadley-Allen.
Greek Lessons—Keep.
Greek Prose Composition—Jones.
Anabasis—Boise.
Iliad—Keep.
History of the United States—Barnes.
History of England—Lancaster and Green.
General History—Barnes.
History of Greece—Smith.
History of Rome—Leighton and Creighton.
Civil Government—Young.
English Literature—Kellogg and Taine.
Shakspere's Plays—Selected.
Evangeline.
Lady of the Lake.
English Classics—Clark and Maynard.
Rhetoric—Kellogg.
English Grammar—Whitney.
Academy Orthoepist.
Arithmetic—Olney.
Complete School Algebra—Olney.
Elements of Algebra—Olney.
Logarithmic Tables—Olney.
Geometry—Olney.
Book-Keeping—Nichols.
French Grammar—Hennequin's Duffet.
French Verbs—Hennequin.
Etude Progressive de la Langue Francaise.
French Echo—Wormer.
French Reader—Hennequin.
Madame Therese—Erckmann-Chartrian.
L'Ami Fritz—Erckmann-Chartrian.
Grammaire Francaise—Borel.
Cours de Francaise—Borel.
German Grammar—Cook's Otto.
German Prose—Boisen.
Studien und Plaudereien.
German Echo—Wormer.
Zopf und Schwert—Pitt Press Series.
Hermann und Dorothea—Pitt Press Series.
Deutsche Lyrik—Buchheim.
Faust, I. Theil—Hart.
Botany—Gray.
Physical Geography—Maury.
Physics—Gage.
Chemistry—Avery.

Geology—Dana.
Physiology—Dalton.
Zoölogy—Orton.
Geography—Van Antwerp and Bragg.
Classical Atlas—Ginn and Heath.
Artillery and Infantry Tactics—U. S. Army.
Constitutional Law—Cooley.
Commercial Law—Clark.
Political Economy—Perry.
Money—Jevons.

Respectfully,

J. SUMNER ROGERS,
Col. Mich. State Troops, Supt.

MICHIGAN MINING SCHOOL.

REPORT OF THE PRINCIPAL.

HON. THEODORE NELSON,
Superintendent of Public Instruction:

SIR,—In response to your circular letter dated August 3, 1886, calling for a report of the operations of the Michigan Mining School during 1885 and 1886, I beg to say that this institution though authorized by an act approved May 1, 1885, will begin its first session on the 15th of the present month (September), and that therefore I am able to submit answers to but few of the questions stated in your blank. This blank I return with such answers as are now possible. I also mail to your address three copies of the prospectus lately issued by the school.

The following extract from the act above referred to defines the aim of the school:

SEC. 1.—*The People of the State of Michigan enact* That a school shall be established in the Upper Peninsula of the State of Michigan, to be called the Michigan Mining School, for the purpose and under the regulations contained in this act.

SEC. 5.—The coure of instruction shall embrace geology, mineralogy, chemistry, mining and mining engineering, and such other branches of practical and theoretical knowledge as will, in the opinion of the board, conduce to the end of enabling the students of said institution to obtain a full knowledge of the science, art, and practice of mining, and the application of machinery thereto. Tuition shall be free in said institution to all bona fide residents of this State, but a reasonable charge for incidental expenses, not less than ten dollars nor exceeding thirty dollars per year, may be made against any student, if deemed necessary, and the board shall not be obliged to furnish books, apparatus, or other materials for the use of students.

The regular corps of instructors is as follows·

Albert Williams, jr., principal and instructor in mining engineering, mettallurgy, geology, mineralogy, and lithology.

John D. Hoffman, instructor in mathematics, surveying, and drawing.

Robert L. Packard, instructor in chemistry, chemical analysis, assaying, and blow-piping.

Besides these gentlemen, it is proposed to employ temporary assistants in teaching machine work, forging and tempering, blasting, etc, and lecturers on special branches.

The course is outlined in the prospectus. Few text books will be used,

instructions being mainly by lectures and by laboratory, shop, field and underground practice.

The Mining School is temporarily established in the former town hall of Houghton—a structure which has been fitted up to meet immediate needs, and which answers its purpose moderately well, though it is hoped that in time ground and a building designed and constructed especially for the school may be provided.

Very respectfully, your obedient servant,

ALBERT WILLIAMS, JR.
Principal.

OLIVET COLLEGE.

REPORT OF THE PRESIDENT.

HON. THEODORE NELSON,
Superintendent of Public Instruction:

DEAR SIR,—I present the annual report touching the condition of Olivet College during the academical year of 1885–6:

The names of those engaged in the work of teaching remained the same as they were the previous year, with one exception, Miss A. B. Shepard took the place of Mrs. Frances Goodman as Instructor in vocal music.

FACULTY.

Rev. Horatio Q. Butterfield, D. D., President, Drury Professor of Mental and Moral Pholosophy.

Rev. Henry M. Goodwin, D. D., Professor of English Literature and Art.

Rev. Oramel Hosford, A. M., Stone Professor of Astronomy and Natural Philosophy and Instructor in Mathematics.

Rev. Joseph L. Daniels, A. M., Parsons Professor of the Greek Language and Literature, and Instructor in German.

Rev. Joseph Estabrook, A. M., Principal of the Normal Department, and Professor of Logic.

Stewart Montgomery, A. M., Professor of Natural Science.

Rev. Jean Frederick Loba, A. M., Professor of Rhetoric, and Instructor in French.

Allen W. Gould, A. M., Rutan Professor of the Latin Language and Literature.

Charles H. Johnson, Professor of Music.

Hamilton King, A. M., Principal of the Preparatory Department.

Geo. N. Ellis, A. M., Instructor in Latin.

Mrs. Abba C. Hamilton, Principal of the Ladies' Department, on the Dennis foundation.

Mrs. Ella M. Kedzie, A. B., Instructor in Painting and Drawing.

Miss Anna B. Shepard, Instructor in Vocal Music.

Miss L. L. Hosford, Teacher of the Piano and Organ.

James Fairman, A. M., Lecturer on Art.

Joseph L. Daniels, A. M., Librarian.

SUMMARY OF STUDENTS FOR 1885-6.

College:		
Classical Course	45	
Scientific Course	26	
Literary	46	
		— 117

Preparatory:		
Classical Course	59	
Literary Course	16	
Scientific Course	3	
		78
Normal Course		79
English and Elective		57
Conservatory of Music		79
Art		59
		469
Deduct for names inserted twice		104
Total		365

GRADUATES AT LAST COMMENCEMENT.

Normal Course	5
Classical Course	6
Literary Course	6
Master of Arts in Course	1
Doctor of Divinity	1

Before the year closed, Mrs. A. C. Hamilton, who had served successfully for several years as Principal of the Ladies' Department, resigned her charge and Catherine E. Hutchings, A. B., of Homer, N. Y., was chosen to fill her place. Miss Hutchings's successful experience for twelve years inspired great confidence in the minds of the Trustees.

During the year the chair of Botany, Geology and Zoölogy, which the Trustees had established at the annual meeting in 1885, was filled by the choice of Hermon C. Bumpus, Ph. B., who was graduated at Brown University, in the class of 1884. His brilliant talents and ability to teach led to his being employed by his Alma Mater to instruct the classes of absent professors. His success was decided. Profs. Jenks and Packard gave him high praise, and Pres. Robinson pronounced him a genius.

During the year nearly all the courses of study were revised with great care. More studies now appear in the Scientific course, and their arrangement as required and elective is thought to have been improved. A more thorough preparation for this course is now required.

In the Classical course neither the number nor the quantity of the studies has been increased; but a better distribution has been sought. Greek and Latin are now distributed throughout the course, instead of being confined to the Freshman and Sophomore years.

The English of the courses is begun earlier. Its required work is put into the Sophomore year, and an option is given to pursue it in the Junior and Senior years.

It is believed that these revised courses fairly and conservatively meet the demand for more attention to science. The College is now fairly equipped for all the scientific study a college education requires.

During the last few years an increasing interest in the study of Hebrew and Old Testament Literature has shown itself in our Theological Seminaries. These institutions are offering inducements to have candidates for the Junior class bring an elementary knowledge of Hebrew. Heeding this sign of the times, the faculty have made the study of Hebrew optional for a term and a half in the Classical course, Senior year.

COURSES OF STUDY.

COLLEGE.

CLASSICAL COURSE.

Freshman Year—First Term.

Latin: Livy. Studies in the Military and Political Antiquities of Rome.

Greek: Homer—The Odyssey. Lectures on the Homeric Poems. Greek Prose Composition.

Mathematics: Algebra completed (Loomis).

Oratory:* Lectures on Composition and Style. Essays, Discussions, Orations and Elocution.

Second Term.

Latin: Horace—Odes. Catullus—Selections. Lectures on Roman Literature.

Greek: Selections from Herodotus and Thucydides. Lectures on Greek History. Greek Testament.

Mathematics: Geometry completed (Loomis).

Oratory: Lectures on Composition and Style. Essays, Discussions, Orations and Elocution.

Third Term.

Greek: Plato—The Apology and Crito. Greek Testament.

Natural Science: Botany--Phænogams, with Laboratory work.

Mathematics: Trigonometry—Plain and Spherical (Loomis).

Oratory: Lectures on Composition and Style. Essays, Discussions, Orations and Elocution.

Sophomore Year—First Term.

Latin (3 h.): Terence—Andria. Exercises in Latin Conversation.

Greek (2 h.): Xenophon—Memorabilia.

Mathematics: *Analytical Geometry (Loomis).*†

French: *Otto's Grammar. Chardenal's First French Course.*

German: *Whitney's Grammar. Stern's Studien und Plaudereien, First Series.*

English: Hart's Rhetoric.

Oratory: Lectures on Composition and Style. Essays, Discussions, Orations and Elocution.

Second Term.

Latin: Tacitus—Agricola. Pliny—Select Letters. Lectures on Philology.

English: History of English Literature.

Natural Science: *Inorganic Chemistry.*

French: *Otto's Grammar. Sauveur's Causeries. Chardenal's French Exercises.*

German: *Whitney's Grammar. Stern's Studien und Plaudereien, Second Series.*

Oratory: Lectures on Composition and Style. Essays, Discussions, Orations and Elocution.

Third Term.

Latin: Juvenal—Select Satires. Studies in the Institutions and History of the Roman Empire.

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* Lessons in the Bible, or Greek Testament, and Oratory, weekly, throughout the course.
† The subjects printed in italics are elective.

Greek : Æschylus—Prometheus. Lectures on the Greek Drama.

French : *Chardenal continued. Knapp's Modern French Prose, or one of the French Classics.*

German : *German Classics—Goethe, Schiller, or Lessing.*

Natural Science : *Inorganic Chemistry, Qualitative Analysis.*

Mathematics : *Surveying and Field Work.*

Oratory : Lectures on Composition and Style. Essays, Discussions, Orations and Elocution.

Junior Year—First Term.

Latin (2 h.) : Horace—Epistles and Select Satires.

Greek (3 h.) : Sophocles—Antigone.

German : *Whitney's Grammar. Stern's Studien und Plauderein, First Series.*

English : *Study of English Classics—Chaucer, Spencer, Shakespeare, Milton with Lectures.*

History : *Ancient and Mediæval History.*

Physics : *Mechanics and Hydrostatics (Snell's Olmstead).*

Oratory : Lectures on Composition and Style. Essays, Discussions, Orations, and Elocution.

Second Term.

Greek : Demosthenes—De Corona. Lectures on the Greek Orators and Oratory.

German : *Whitney's Grammar. Stern's Studien und Plauderein, Second Series.*

Physics : *Pneumatics, Acoustics, Light, Heat, and Electricity.*

History : *History of England.*

Natural Science : *Human Anatomy and Physiology, and Hygiene.*

Oratory : Lectures on Composition and Style. Essays, Discussions, Orations and Elocution.

Third Term.

Latin : Cicero—De Natura Deorum. Lectures on Roman Religion and Mythology.

Metaphysics : Logic (Hill's Jevon).

German : *German Classics—Goethe, Schiller, or Lessing.*

Physics : *Astronomy (Snell's Olmsted).*

History : *History of France and Germany.*

Oratory : Lectures on Composition and Style. Essays, Discussions, Orations, and Elocution.

Senior Year—First Term.

Metaphysics : Elements of Intellectual Science (Porter).

English : *Study of Later English Authors, with Lectures.*

Natural Science : *Geology—Dynamical and Structural, with Crystallography and Special Studies in Mineral Description.*

Civil Polity : *Lieber on Civil Liberty.*

Oratory : Lectures and Exercises in Elocution and Oratory.

Second Term.

Metaphysics : Elements of Intellectual Science (Half Term).

Civil Polity : Political Economy.

Greek : *Sophocles—Œdipus Tyrannus. Plato—Phædo. Lectures on Greek Philosophy.*

History : *Constitutional History of the United States.*
Natural Science : *Historical Geology and Paleontology.*
Hebrew : *Davidson's Grammar (half term).*
Oratory : Lectures and Exercises in Elocution and Oratory.

Third Term.

Ethics : Moral Philosophy.
Hebrew : or Davidson's Grammar continued. And Selections from Genesis.
Christianity : Evidences of Christianity, with Lectures.
Art : *Outline History, with Lectures on the Principles and Philosophy of Art.*
Latin : *Lucretius. Lectures on Roman Schools of Philosophy.*
Pedagogics : *Lectures—Development of the Human Faculties. Organization, Grading and Management of Schools. History of Education.*
History : *Guizot's History of Civilization.*
Oratory : A Thesis for Graduation.

Candidates for admission to the Freshman class who have pursued their preparatory studies elsewhere are examined in the following books and subjects, or their equivalents:

Latin Grammar, Including Prosody.
Cæsar, two books.
Cicero, seven orations.
Virgil, three Bucolics and six books of the Æneid.
Jones's Latin Prose Composition.
Smith's Smaller History of Greece, and of Rome.
Greek Grammar, including Prosody.
Xenophon, Anabasis, three books.
*Homer, Iliad, two books.
Higher Arithmetic, including the Metric system.
Loomis' Algebra, through Quadratic Equations.
Loomis' Geometry, four books.
English Grammar and Geography.
Civil Government.

All candidates for advanced standing in this and the following courses are examined, in addition to the preparatory studies, in those already pursued by the class which they propose to enter.

SCIENTIFIC COURSE.

Freshman Year—First Term.

History (3 h.): Roman History and Geography.
Latin : Selections from Sallust. Exercises in Writing.
Mathematics : Algebra completed (Loomis).
English :† Essays, Discussions, and Declamations. Drill in Elocution.

Second Term.

History (3 h.): Greek History and Geography.
Latin : Cicero. Exercises in Composition.
Mathematics : Geometry completed (Loomis).
English : Essays, Discussions, and Declamations. Drill in Elocution.

*In place of the Homer, the last six books of Virgil's Æneid, or 2,000 lines of Ovid will be accepted
† Lessons in the Bible, and English or Oratory, weekly, throughout the course.

Third Term.

Latin : Cicero. Exercises in Composition.
Natural Science : Botany—Phænogams, with Laboratory work.
Mathematics : Trigonometry—Plain and Spherical (Loomis).
English : Essays, Discussions, and Declamations. Drill in Elocution.

Sophomore Year—First Term.

English : Hart's Rhetoric.
Mathematics: Analytical Geometry (Loomis).
Natural Science : *Botany—Cryptogams, with Laboratory work.**
French : *Otto's Grammar. Chardenal's First French Course.*
English : Essays, Discussions and Declamations. Drill in Elocution.

Second Term.

Natural Science : Inorganic Chemistry. *Zoölogy—Invertebrates, with Laboratory work.*
English : History of English Literature.
French : *Otto's Grammar. Sauveur's Causeries. Chardenal's French Exercises.*
English : Essays, Discussions, Declamations and Orations. Drill in Elocution.

Third Term.

Mathematics : Surveying and Field Work.
Natural Science : *Inorganic Chemistry, Qualitative Analysis Zoölogy—Vertebrates.*
French : *Chardenal continued. Knapp's Modern French Prose, or one of the French Classics.*
English ; Essays, Discussions, Declamations and Orations. Drill in Elocution.

Junior Year—First Term.

Physics : Mechanics and Hydrostatics (Snell's Olmsted).
Natural Science : *Organic Chemistry. Qualitative Analysis, with a course in the Determination of Minerals.*
English : *Study of English Classics—Chaucer, Spenser, Shakespeare, Milton with Lectures.*
German : *Whitney's Grammar. Stern's Studien und Plaudereien, First Series.*
History : *Ancient and Mediæval History.*
Oratory :† Lectures on Composition and Style. Essays, Discussions, Orations, and Elocution.

Second Term.

Physics . Pneumatics, Acoustics, Light, Heat and Electricity.
German : *Whitney's Grammar. Stern's Studien und Plaudereien, Second Series.*
Natural Science: *Human Anatomy and Physiology, and Hygiene.*
History : *History of England.*
Oratory : Lectures on Composition and Style. Essays, Discussions, Orations, and Elocution.

* The subjects printed in italics are elective.
† Lessons in the Bible, and English or Oratory, weekly, throughout the course.

Third Term.

Metaphysics: Logic (Hill's Jevon).
German: *German Classics—Goethe, Schiller, or Lessing.*
Physics: *Astronomy (Snell's Olmsted).*
History: *History of France and Germany.*
Oratory: Lectures on Composition and Style. Essays, Discussions, Orations, and Elocution.

Senior Year—First Term.

Metaphysics: Elements of Intellectual Science (Porter).
Natural Science: *Geology—Dynamical and Structural, with Crystallography and Special Studies in Mineral Description.*
Civil Polity: *Lieber on Civil Liberty.*
English: *Study of Later English Authors, with Lectures.*
Oratory: Lectures and Exercises in Elocution and Oratory.

Second Term.

Metaphysics: Elements of Intellectual Science (half term).
Civil Polity: Political Economy.
Natural Science: *Historical Geology and Paleontology.*
History: *Constitutional History of the United States.*
Oratory: Lectures and Exercises in Elocution and Oratory.

Third Term.

Ethics: Moral Philosophy.
Christianity: Evidences of Christianity, with Lectures.
Art: *Outline History, with Lectures on the Principles and Philosphy of Art.*
History: *Guizot's History of Civilization.*
Pedagogics: *Lectures—Devolopment of the Human Faculties. Organization, Grading, and Management of Schools. History of Education.*
Oratory: A Thesis for Graduation.
Candidates for admission to this department must sustain a satisfactory examination in the subjects outlined in the Scientific and Literary Courses, Preparatory Department.

LITERARY COURSE.

Freshman Year—First Term.

History (3 h.): Roman History and Geography.
Latin: Selections from Sallust. Exercises in Writing.
Mathematics: Algebra completed (Loomis).
English:* Essays, Discussions, and Declamations. Drill in Elocution.

Second Term.

History (3 h): Greek History and Geography.
Latin: Cicero. Exercises in Composition.
Mathematics: Geometry completed (Loomis).
English: Essays, Discussions, and Declamations. Drill in Elocution.

* Lessons in the Bible, and English or Oratory, weekly, throughout the course.

Third Term.

Latin : Cicero. Exercises in Composition.
Natural Science: Botany—Phænogams, with Laboratory work.
Mathematics : Trigonometry—Plain and Spherical (Loomis).
English : Essays, Discussions, and Declamations. Drill in Elocution.

Sophomore Year—First Term.

English : Hart's Rhetoric.
Latin : Virgil. Reading at Sight. Composition.
French : Otto's Grammar. Chardenal's First French Course.
Mathematics : *Analytical Geometry (Loomis).* *
English : Essays, Discussions, and Declamations. Drill in Elocution.

Second Term.

English : History of English Literature.
Latin : Virgil: Reading at sight. Composition (Poetry into Prose).
French : Otto's Grammar. Sauveur's Causeries. Chardenal's French Exercises.
Natural Science : *Inorganic Chemistry.*
English : Essays, Discussions, Declamations and Orations. Drill in Elocution.

Third Term.

Latin : Virgil. Reading at sight. Reviews.
French : Chardenal continued. Knapp's Modern French Prose, or one of the French Classics.
Natural Science : *Inorganic Chemistry. Qualitative Analysis. Zoölogy—Vertebrates.*
English : Essays, Discussions, Declamations and Orations. Drill in Elocution.

Junior Year—First Term.

German : Whitney's Grammar. Stern's Studien und Plauderein, First Series.
Physics : *Mechanics and Hydrostatics (Snell's Olmsted).*
Latin : *Livy. Studies in Military and Political Antiquities of Rome.*
English : *Study of English Classics—Chaucer, Spenser, Shakespeare, Milton, with ectures.*
History : *Ancient and Mediæval History.*
Oratory : Lectures in Composition and Style. Essays, Discussions, Orations and Elocution.

Second Term.

German : Whitney's Grammar. Stern's Studien und Plauderein, Second Series.
Physics : *Pneumatics, Acoustics, Light, Heat, and Electricity.*
Latin : *Horace—Odes. Catallus—Selections. Lectures on Roman Literature.*
Natural Science : *Human Anatomy and Physiology, and Hygiene.*
History : *History of England.*
Oratory : Lectures on Composition and Style. Essays, Discussions, Orations and Elocution.

Third Term.

German : German Classics—Goethe, Schiller, or Lessing.
Metaphysics : Logic (Hill's Jevon).
Physics : *Astronomy (Snell's Olmsted).*

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* The subjects printed in italics are elective.

Latin : *Juvenal—Select Satires. Studies in the Institution and History of the Roman Empire.*

History : *History of France and Germany.*

Oratory : Lectures on Composition and Style. Essays, Discussions, Orations, and Elocution.

Senior Year—First Term.

Metaphysics : Elements of Intellectual Science (Porter).

Natural Science : *Geology—Dynamical and Structural, with Crystallography and Special Studies in Mineral Description.*

Civil Polity : *Lieber on Civil Liberty.*

English : *Study of Later English Authors, with Lectures.*

Oratory : Lectures and Exercises on Elocution and Oratory.

Second Term.

Metaphysics : Elements of Intellectual Science (half term).

Civil Polity : Political Economy.

Natural Science : *Historical Geology and Paleontology.*

History : *Constitutional History of the United States.*

Oratory : Lectures and Exercises in Elocution and Oratory.

Third Term.

Ethics : Moral Philosophy.

Christianity : Evidences of Christianity, with Lectures.

Art : *Outline History, with Lectures on the Principles and Philosophy of Art.*

Latin : *Lucretius. Lectures on Roman Schools of Philosophy.*

History : *Guizot's History of Civilization.*

Pedagogics : *Lectures—Development of the Human Faculties. Organization, Grading, and Management of Schools. History of Education.*

Oratory : A Thesis for Graduation.

Candidates for admission to this department must sustain a satisfactory examination in the subjects outlined in the Scientific and Literary Courses, Preparatory Department.

COURSES OF STUDY.

PREPARATORY DEPARTMENT.

CLASSICAL COURSE.

Junior Year—First Term.

English : Grammar and Analysis.

Latin : Grammar and Lessons.

Mathematics : Arithmetic (Wentworth and Hill).

English : * Spelling, Punctuation, Dictation and Declamation.

Second Term.

English : Grammar and Analysis completed.

Latin : Grammar and Lessons. Selections from Cæsar. Exercises in Writing.

Mathematics : Arithmetic completed, including the Metric System.

English : Spelling, Development of Simple Themes, and Declamations.

*Lessons in the Bible and English, weekly, throughout the course.

Third Term.

History: History and Geography of the United States.

Latin: Cæsar. Exercises in Writing.

Government: Civil Government of the United States, with special reference to Michigan.

English: Spelling, Essays and Declamations.

Middle Year—First Term.

Latin: Sallust—Selections. Exercises in Writing. Reading at sight.

Greek: Grammar and Lessons.

Mathematics: Algebra (Loomis).

English: Essays, Written Discussions, Declamations, Drill in Elocution.

Second Term.

Latin: Cicero. Exercises in Composition. Reading at sight.

Greek: Grammar and Lessons.

Mathematics: Algebra through Quadratic Equations.

English: Essays, Discussions and Declamations. Drill in Elocution.

Third Term.

Latin: Cicero. Exercises in Composition. Reading at sight.

Greek: Grammar and Lessons. Xenophon (Coy's First Reader, forty pages).

Mathematics: Geometry (Loomis, four books).

English: Essays, Discussions, and Declamations. Drill in Elocution.

Senior Year—First Term.

Latin: Virgil. Exercises in Composition. Reading at sight.

Greek: Review of the Lessons. Xenophon—(First Reader completed). Anabasis, Books I, II. Reading at sight. Composition.

History (3 h.): Roman History and Geography.

English: Essays, Discussions and Declamations. Drill in Elocution.

Second Term.

Latin: Virgil. Composition (Poetry into Prose). Reading at sight.

Greek: Xenophon—Anabasis, Books III. IV. Herodotus—Selections. Reading at sight. Composition.

History (3. h.): Greek History and Geography.

English: Essays, Discussions, Declamations, and Orations. Drill in Elocution.

Third Term.

Latin: Virgil. Reading at sight. Reviews.

Greek. Homer—Iliad, two books. Selections from Attic Prose. Reading at sight. Reviews.

English: A Thesis for Graduation.

SCIENTIFIC AND LITERARY COURSES.

Junior Year—First Term.

English: Grammar and Analysis. Penmanship.

Mathematics: Arithmetic (Wentworth and Hill).

Geography : Political Geography.
English :* Spelling, Punctuation, Dictation, and Declamation.

Second Term.

English : Grammar and Analysis completed.
Mathematics : Arithmetic completed, including the Metric System, and Book-keeping.
English : Spelling, Development of Simple Themes, and Declamations.

Third Term.

History : History and Geography of the United States.
Government : Civil Government of the United States, with special reference to Michigan.
Drawing : Free-hand and Geometrical Drawing.
English : Spelling, Essays and Declamations.

Senior Year—First Term.

Latin : Grammar and Lessons.
Mathematics : Algebra (Loomis).
Natural Science : Physical Geography.
English : Essays, Written Discussions, Declamations, Drill in elocution.

Second Term.

Latin : Grammar and Lessons. Selections from Cæsar. Exercises in Writing.
Mathematics : Algebra thorough Quadratic Equations.
Physics : Natural Philosophy (Elementary).
English : Essays, Discussions, and Declamations. Drill in Elocution.

Third Term.

Latin : Cæsar. Exercises in Writing.
Mathematics : Geometry (Loomis, four books).
Natural Science : Physiology and Hygiene (Elementary).
English : Essays, Discussions, and Declamations. Drill in Elocution.
All candidates for advanced standing in these courses are examined in studies already pursued by the class they propose to enter.

ENGLISH DEPARTMENT.

The course of instruction in this department is designed to impart a thorough knowledge of the common and higher branches of an English education. Students are prepared for the best Scientific schools by substituting Latin or French, as required, for equivalent studies. Students who honorably complete the first three years may receive a certificate for presentation to Scientific schools. The preparation required for admission is indicated by the Course of Study below. The studies of the third and fourth years are not pursued as elementary studies.

The College is provided with apparatus for illustrating the principles of Natural Philosophy and Astronomy, and instruction is given in its use. It has also a valuable set of instruments for Practical Surveying and Civil Engineering. The Laboratory is fitted with desks and apparatus for practical work by the students, both in General Chemistry and in Chemical Analysis.

* Lessons in the Bible, and English or Oratory, weekly, throughout the course.

COURSE OF STUDY.

First Year—First Term.

English Grammar. Arithmetic. Geography. Penmanship. *English—Spelling, Punctuation, Dictation and Declamations.

Second Term.

English Grammar and Analysis. Arithmetic. Book-keeping. English—Spelling, Development of Simple Themes, and Declamations.

Third Term.

History of the United States. Civil Government. Drawing. English—Spelling, Essays, and Declamations.

Second Year—First Term.

Physical Geography. Mediæval History. Algebra. English—Essays, Written Discussions, Declamations, and Drill in Elocution.

Second Term.

Natural Philosophy. Modern History. Algebra. Vocal Music. English—Essays, Discussions, Declamations, and Drill in Elocution.

Third Term.

Geometry. Physiology. Botany. English—Essays, Discussions, Declamations, and Drill in Elocution.

Third Year—First Term.

Algebra. Botany. Rhetoric. English—Essays, Discussions, Declamations, and Drill in Elocution.

Second Term.

Geometry. English Literature. †*Chemistry. Anatomy and Physiology.* English—Essays, Discussions, Declamations, Orations, and Drill in Elocution.

Third Term.

Logic. *Trigonometry. Chemistry. Advanced Methods.* English—Essays, Discussions, Declamations, Orations, and Drill in Elocution.

Fourth Year—First Term.

Analytical Geometry. History. Geology. Mental Philosophy. French. German. * Oratory—Lectures on Composition and Style, Essays, Discussions, Orations, and Elocution.

Second Term.

History. Geology. Mental Philosophy, Political Economy. French. German. Oratory —Lectures on Composition and Style, Essays, Discussions, Orations, and Elocution.

Third Term.

Astronomy. History. Art. Surveying. French. German. Oratory—Essays, Discussions, Declamations, and Elocution.

* Lessons in the Bible, and English or Oratory, weekly, throughout the course.
† The subjects printed in italics are elective.

NORMAL DEPARTMENT.

ENGLISH COURSE.

First Year—First Term.

English Grammar. Arithmetic. Geography. Penmanship. Methods—Elementary Sounds, Primary Reading, and Language Lessons. *English—Spelling, Punctuation, Dictation, and Declamations.

Second Term.

English Grammar and Analysis. Arithmetic. Book-keeping. English—Spelling, Development of Simple Themes, and Declamations.

Third Term.

History of the United States. Civil Government. Drawing. English—Spelling, Essays, and Declamations.

Second Year—First Term.

Algebra. Physical Geography. Mediæval History. Methods—Class Work. English—Essays, Written Discussions, Declamations, and Drill in Elocution.

Second Term.

Algebra. Natural Philosophy. Modern History. Vocal Music. English—Essays, Discussions, Declamations, and drill in Elocution.

Third Term.

Geometry. Physiology. Botany. English—Essays, Discussions, Declamations, and Drill in Elocution.

Third Year—First Term.

Algebra. Rhetoric. Methods—School Organization, Grading and Management. † *German. Latin.* English—Essays, Discussions, Declamations, and Drill in Elocution.

Second Term.

Geometry. Chemistry. English Literature. German. Latin. English—Essays, Discussions, Declamations, and Drill in Elocution.

Third Term.

Logic. German. Latin. Chemistry. Methods—Development of the Human Faculties; Organization, Grading and Management of Schools, and History of Education. English—Essays, Discussions, Declamations, and Drill in Elocution.

LANGUAGE COURSES.

First Year—First Term.

English Grammar. Arithmetic. Geography. Penmanship. Methods—Elementary Sounds, Primary Reading and Language Lessons. *English—Spelling, Punctuation, Dictation and Declamations.

Second Term.

English Grammar and Analysis. Arithmetic. Book-keeping. English—Spelling, Development of Simple Themes and Declamations.

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*Lessons in the Bible, and English or Oratory, weekly, throughout the course.

†The subjects printed in italics are elective.

Third Term.

History of the United States. Civil Government. Drawing. English—Spelling, Essays, and Declamations.

Second Year—First Term.

Algebra. Mediæval History. Latin. Methods—Class Work. English—Essays, Written Discussions, Declamations and Drill in Elocution.

Second Term.

Algebra. Modern History. Latin. Vocal Music. English—Essays, Discussions, Declamations and Drill in Elocution.

Third Term.

Geometry. Physiology. Latin. English—Essays, Discussions, Declamations and Drill in Elocution.

Third Year—First Term.

Algebra. Methods—School Organization, Grading and Management. †*Latin. French. Greek. German.* English—Essays, Discussions, Declamations and Drill in Elocution.

Second Term.

Geometry. *Latin. French. Greek. German.* English—Essays, Discussions, Declamations, Orations and Drill in Elocution.

Third Term.

Botany. *Latin. French. Greek. German.* English—Essays, Discussions, Declamations, Orations, and Drill in Elocution.

Fourth Year—First Term.

Latin. Greek. Roman History. Geology. Rhetoric. Mental Philosophy. Oratory—Lectures on Composition and Style, Essays, Discussions, Orations, and Elocution.

Second Term.

Latin. Greek. Greek History. Chemistry. English Literature. Mental Philosophy. Oratory—Lectures on Compositions and Style, Essays, Discussions, Orations, and Elocution.

Third Term.

Latin. Greek. Art. Chemistry. Moral Philosophy. Methods—Development of the Human Faculties; Organization, Grading, and Management of Schools, and History of Education. Oratory—Lectures on Composition and Style, Essays, Discussions, Orations, and Elocution.

THE MICHIGAN CONSERVATORY OF MUSIC

was under the direction of Prof. C. H. Johnson, and maintained its reputation for affording the finest advantages. The breadth and thoroughness of the instruction given may be seen from the following outline of the studies pursued:

First Year—First Term.

Beyer's Preliminary School; Knorr's Guide for the Pianist; Lebert and Stark's Method; or Wohlfahrt's Young Pianist's Guide. Plaidy's Technical Studies; Studies

in Position, Tension, Motion, and Touch; Exercises for forming the hand; Single and Two-finger Exercises; Five-finger Exercises; Transposition to Key of D; Scales of C, G, and D. Analysis and Synthesis—rhythmic, melodic, and harmonic. Reviews, oral and technical.

Second Term.

Beyer's School completed; or Knorr's Guide through 50th page; or Wohlfahrt's Guide completed. Plaidy's Technical Studies; Five-note Exercises; Major Scales completed. Analysis throughout the course. Three pieces—one a Sonatina by Beethoven, Diabelli, Lichner, or Spindler; Memorizing.

Third Term.

Knorr's Guide completed; or Czerny, Op. 139 (1 and 2); or Bertini, Op. 100; or Concone's Etudes Melodiques; or Heller, Op. 47. Two-part Canons, by Kunz. Five-note Exercises (Plaidy). Minor Scales and Scale Review. Three pieces. Playing from Memory. Reading at sight from Diabelli's Melodious Exercises.

Second Year—First Term.

Bach, Little Preludes; Wollenhaupt, Etudes; or Concone. Etudes Melodiques, Bk. 2; or Heller, Op. 47, Bk. 2; or Czerny, Op. 139, No. 3. Moving Figures, or Chords and Major Arpeggios (Plaidy). Action of Hand and of Arm; Tone; Accent; Expression; Memorizing. Reading of Vocal Score. Fingering of Church Music. Use of Metronome. Three pieces. Sight Reading. Playing in General Exercises.

Second Term.

Bertini, Op. 29; or Heller, Op. 46; or Czerny, Op. 849 or 636, Bach's Inventions. Moving Figures completed, or Minor Chords and Arpeggios (Plaidy). Tone in Chord Playing. Phrasing. Sonatas by Clementi and Hayden. Mendelssohn's Songs without words. Six pieces. Sight reading from Mozart's Four-hand Sonatas. Reading of Motets, Glees, etc. Memorizing, two pieces.

Third Term.

Bertina, Op. 32; or Heller, Op. 45; or Kœhler, Op. 128; or Aloys Schmidt, Op. 16. Czerny, Op. 848. Bach's Inventions. Arpeggios or Moving Figures. Scale Review for higher Velocity and Power. Reading of Score in Oratorio Choruses. Song accompaniments throughout the course. Four pieces—two memorized; Sonatas of Mozart. Preludes from the Well-Tempered Clavichord of Bach.

Third Year—First Term.

Cramer's Etudes, or Heller, Op. 16 or 81; or Czerny, Op. 740, Nos. 1 and 2; or Jensen, Op. 32; or Behrens, Op. 22; or Rosenhain; Bach's Preludes; Czerny, Op. 337, Bk. 1, 10 studies; Dominant Seventh Arpeggios, Arpeggo Review, Arpeggio Moving figures. Reading Oratorio Choruses. Study of Transpositions. Six pieces. Sonatas by Beethoven and Mozart. For Sight Reading, Haydn's Symphonies. Concert Playing.

Second Term.

Clementi, Gradus ad Parnassum (Tausig and Littolff); or Moscheles, Op. 70, Book 1; or Eschmann's Etudes; or Czerny, Op. 740, Nos. 3 and 4. Bach's 48 Preludes and Fugues; Czerny, Op. 337, Bk. 1, completed. Second Scale Review. Scales in Double Tones. Kullak's Octave School begun. Study of Transposition continued (Cramer's Etudes, or Bach's Preludes). Reading of Mozart's Symphonies and Overtures, Sonatas

by Beethoven, Schubert, Weber, and Hummel. Fantasies, Waltzes, etc., by Mendelssohn, Schumann, Chopin, and others.

Third Term.

Chopin, Op. 10; or Clementi's Gradus completed; or Moscheles, Op. 70, Bk. 2. Bach's 48 Preludes and Fugues. Study of Improvisation. Reading of Beethoven's Symphonies and Overtures. Czerny, Op. 337, Bk. 2, and Kullak's Octave School, Bks. 1 and 2. Third Scale Review. Sonatas by Beethoven, Schubert, and Weber. Nocturnes, Fantasies, and Impromptus by Schumann, Chopin, and Schubert. Suites by Bach and Handel.

Fourth Year.

Those preparing to teach may here substitute the Normal Course for certain other studies at the beginning of this year; they must, however, first have passed a satisfactory examination in the studies of the preceding three years, showing good attainments in technique as well as general knowledge of music.

First Term.

Chopin, Op. 25; or Henselt, Op. 2 or Op. 5; or Moscheles, Op. 95. Fourth Scale Review. Concertos of Mendelssohn, Beethoven, and Bach. Rhapsodies of Liszt. For general reading, Scarlatti, Bach, and Handel. Essays on Music. Chorus accompaniment.

Second Term.

Liszt, Grand Etudes de Paganini; or Schumann, Op. 3; or Rubinstein's Etudes. Classification of Works. General Analytic and Synthetic Review.

Third Term.

Concert Playing of selected pieces. Chamber and Concerted Music with orchestra, etc. Reading and Analysis of new publications for study of the elements of Musical Criticism.

THE ART DEPARTMENT

was under the care of Mrs. Ella M. Kedzie, whose work and instruction gave universal satisfaction. Instruction was afforded in Pencil Drawing, Linear Perspective, Charcoal Drawing with use of casts, China Painting, Crayon Drawing, Water Colors and Oil Painting. The pupils wrought with enthusiasm.

THE LIBRARY.

The income from the Tuttle fund affords means for rapid growth. Nearly a thousand volumes are added yearly. The whole number of volumes in the Library now exceeds 13,000.

THE BROWN CABINET.

This shows a wealth of scientific material. It numbers more than 50,000 specimens. The fossils are valuable. The minerals are more numerous, comprising three-fifths of those found in Prof. Dana's list. The shells are numerous enough to illustrate the conchology of the globe.

THE PALMER MUSEUM.

This is enriched with Ward's series of casts of fossils. These, with the materials afforded by the Brown Cabinet, amply illustrate Geology, Mineralogy and Paleontology.

RELIGIOUS CULTURE.

The students were required to attend devotional services daily in the chapel, public worship twice upon Sunday, and an exercise for the study of the Bible every week.

They sustained two organizations for religious and philanthropic work, the object of which was to maintain weekly religious meetings, and to conduct Sunday schools in the neighborhood. Monthly missionary meetings were held by them during the College year.

The year was one of the best in the history of the College.

Very respectfully yours,

HORATIO Q. BUTTERFIELD,
President.

VISITORS' REPORT.

HON. THEODORE NELSON,

Superintendent of Public Instruction:

DEAR SIR—It is with pleasure that the undersigned, a committee appointed to visit Olivet College, report that we made two visits, one in February and the other at commencement time in June. We found the College in good condition, and earnestly pushing forward to a larger degree of usefulness.

While the College is not sectarian it is supported mainly by the Congregationalists and Presbyterians of the State. The invested funds are not as yet sufficient to yield the income required to meet the running expenses of the institution, and the deficiency is made up by gifts from friends. It is expected that within the coming year the endowment will be made ample to cover these expenses. A revised scheme of studies is now in force, by which arrangements are made to meet the special tastes and aptitudes of the students.

We were pleased with the work that is being done in the Greek department. The method of teaching that language is such that the full advantages of the study are obtained without any undue waste of time. The same method obtains with advantage in the department of modern languages. In natural sciences the instruction is full and practical.

We desire to call especial attention to the Normal department, which has met with such gratifying success in fitting teachers for the common schools of the State by its system of reviewing the common branches and a course of instruction in the theory and art of teaching, and also the department of Mathematics for its carefully selected course. There seems to be more time given to Greek and Latin than is absolutely necessary, and less to the subjects of United States History, Political Economy and Philosophy than their increasing importance demands.

The apparatus for the departments of Physics and Physiology, and the laboratory for the department of Chemistry are valuable. The museum furnished with "Ward's series of casts of fossils," and the Brown cabinet embracing over 50,000 specimens, illustrate in an excellent manner the sciences of Geology, Paleontology and Mineralogy.

The large and finely selected Library containing 13,000 books and 14,000 unbound pamphlets, is the best belonging to any denominational College in the State, and we most cordially recommend to the faculty the advisability of having the Library open at least three hours each half day to the students of the College.

The accommodations of the ladies' hall are in every way excellent, the rooms well warmed and lighted, fresh and generally pleasant. The dining accommodations for all the students are usually good. A new dormitory for the accommodation of the young men is one of the needs of the College.

The moral atmosphere of the institution (excepting the use of tobacco by some of the young men) is of the best. The village exists for the College, and the residents are all interested in its success, as their repeated acts of self-denial have abundantly testified.

We had the pleasure of being present at the literary exercises of one of the College literary societies, and were pleased to note the tone of sturdy thought and earnestness to which the varied exercises gave evidence.

J. M. BALLOU,
W. C. EDSELL,
CHARLES MOORE,
Board of Visitors.

RAISIN VALLEY SEMINARY.

REPORT OF THE PRINCIPAL.

HON. THEODORE NELSON,

Superintendent of Public Instruction:

DEAR SIR,—During the school year ending June 24th, 1886, Raisin Valley Seminary was in a prosperous condition. The enrollment reached 97. An unusually large number of students came from Indiana and Ohio. There were eight members in the graduating class; seven of whom finished the English course. During the autumn term a great degree of interest was manifested in Astronomy, and in the spring Botany claimed especial attention. The locality is very favorable for extended work in analytical botany; some members of the class analyzed as many as 260 specimens in twelve weeks. An eight-page paper devoted to the interests of the Seminary was begun and will be published every two months during the coming year. The Seminary Mirror has already a considerable circulation, which is increasing with each issue.

At the close of the year, Principal W. W. White severed his connection with the school, and F. R. Hathaway was elected to fill the vacancy.

Yours truly,

F. R. HATHAWAY,
Principal.

SOMERVILLE SCHOOL.

REPORT OF THE PRINCIPAL.

HON. THEODORE NELSON,
Superintendent of Public Instruction:

SIR,—In compliance with your circular of August 31, I proceed to answer its questions.

The condition of the educational interests of the Institution is excellent. It is doing good work in every department.

The number of Professors and teachers, 9. Names as follows:

C. C. Wetsell, Mental and Moral Science and Chemistry.

M. Annie Wythe, Lady Principal, Belles-lettres department, Illustrative and Historical Art and French.

H. T. Hickok, A. M., Ancient Languages, Higher Mathematics, and German.

Josie E. Knight, Piano, Organ, Guitar, and Theory of Music.

Helen M. Wetsell, Oil Painting and Crayoning.

Carruth Buchanan, Elocution, Reading, and Gymnastics.

Firza L. Barnes, Natural Science and Assistant in German.

Jessie E. Wells, Voice Culture, Singing, and History.

Walter Voiztlander, Violin and Viola.

The number of pupils studying			English *only*, is	7
"	"	"	French	21
"	"	"	German	7
"	"	"	Piano Music	23
"	"	"	Singing (private lessons)	11
"	"	"	History, general	9
"	"	"	" of Art	4

I will say in closing this report, that the Institution is thoroughly well equipped for the work it is designed to do, and I do not hesitate to say that the work is well done.

We cordially invite your inspection of our work, and of the methods of doing the same.

The following are the courses of study and text-books used:

TEXT-BOOKS.

COLLEGE PREPARATORY OR ACADEMIC DEPARTMENT.

Algebra.....Wentworth
Arithmetic.....Wentworth and Hill
Astronomy.....Lockyer
Botany.....Wood
Chemistry.....Avery
Composition.....Hill
English Literature (with Green's "Shorter History").....Welsh
Etymology.....Swinton
French—
1st Year: Sauveur's "La Grammaire Française,"
Sauveur's "La Parole Française."
2d Year: Sauveur's "Causeries avec Mes Elèves,"
Sauveur's "Contes Merveilleux,"
La Mythologie de Lamé Fleury.
3d Year: Sauveur's "Ces Fables de La Fontaine,"
Sauveur's "Entretiens sur La Grammaire,"
La Littérature Française Contemporaine.
4th Year: Higher Course of Reading,
Criticism with Composition.
La Littérature Française Classique.
Geography.....Monteith and McNally
Geography (Physical).....Cornell
Geology.....Dana
Geometry.....Wentworth
German—
Ahn's Complete Grammar.
First and Second German Readers,
Works of Schiller and Goethe.
Grammar (English).....Swinton
Greek—
Hadley's Grammar,
Boise's First Lessons,
Jones's Prose Composition.
History (General).....Anderson
History (English).....Anderson
History (Greek).....Smith
History (Roman).....Smith
Latin—
Jones's First Lessons and Prose Composition,
Harkness's Grammar,
Cicero and Ovid,
Morberly's Cæsar,
Frieze's Virgil.
Natural Philosophy.....Gage
Notes on Nursing.....Florence Nightingale
Physiology.....Walker

Political Economy ..... Chapin
Readers (English) ..... Monroe
Rhetoric (Elements) ..... Hill
Zoölogy ..... Tenney

BELLES-LETTRES DEPARTMENT.

Art (Elementary History of) ..... D'Anvers
History (Ancient) ..... Bloss, Anderson
History (France) ..... Goodrich
History (French Literature)—
Pylodet's "La Littérature Francaise Classique."
Pylodet's "La Littérature Francaise Contemporaine."
History (Germany) ..... Taylor
History (German Literature) ..... Taylor
Painting (Schools and Masters of) ..... Radcliffe
Philosophy (Intellectual) ..... Mahan
Philosophy (Moral) ..... Hill
Plays and Dramas—
Æschylus, Euripides, Sophocles,
Racine, Corneille, Moliere,
Schiller, Goethe,
Shakespeare,
Also Reading from:
Mary Somerville's Works,
Baldwin's "Pre-Historic Nations,"
Draper's "Intellectual Development of Europe" (2 vols.),
Goldwin Smith's "Lectures on the Study of History,"
Sismondi's "Literature on Southern Europe" (2 vols.),
Grimm's "Life of Michael Angelo" (2 vols.),
Roscoe's "Life of Benvenuto Cellini,"
Roscoe's "Life of Lorenzo de Medicis,"
Roscoe's "Life of Leo X,"
Mrs. Oliphant's "Makers of Florence,"
Ruskin's "Stones of Venice" (portions of vols. 1, 2 and 3),
Ruskin's "Modern Painters" (vol 1),
Ruskin's "Seven Lamps of Architecture,"
Milton's "Paradise Lost,"
Dante's "Divine Comedy" (translated by Longfellow),
Cousin's "Lectures on the True, the Beautiful, and the Good,"
Blanc's "Grammar of Painting and Engraving,"
Lessing's "Laocoön,"
Lecky's "History of European Morals,"
Flaxman's "Lectures on Sculpture,"
Wilkinson's "Ancient Egyptians,"
Furgusson's "History of Architecture,"
Luebke's "History of Sculpture,"
Luebke's "History of Art,"
Kugler's "Schools of Painting,"
Jameson's "Legends of the Madonna,"
Clements's "Legendary and Mythological Art,"
Scull's "Greek Mythology Systematized,"
Mitchell's History of Ancient Sculpture.

INSTRUCTION.

I.

DEPARTMENT OF LITERATURE.

Under the general department of Literature there are three special departments provided: (1) College Preparatory, (2) Academic, (3) Belles-lettres.

1. COLLEGE PREPARATORY.

In the "College Preparatory" are included the following distinct courses: (1) Classical, (2) English, (3) Scientific, (4) Latin. The studies in this department embrace a period of four years, to correspond as nearly as possible with the work of the approved High Schools of the State. Requirements for graduation in this department are the same as those for *unconditional* admission to the University of Michigan—the status of the School to be determined by examinations conducted by official Visiting Committees statedly appointed by the highest educational authority in the State.

Somerville School, in its College Preparatory department, is largely designed as providing the required preparation for admission to the State University, and the arrangement of its studies is in accordance with this design. A standing of 80 per cent in each term's work and each study pursued will be required before a pupil will be passed; but a standing of 70 per cent will enable a student to continue a study. Any who may fall below this last percentage will be subject to re-classification on the basis of their class standing. Diplomas will be awarded in the College Preparatory department for *complete* courses of study. Students who satisfactorily complete the work of this department, and also that of the Belles-lettres department, are entitled to the "Full Somerville Course" diploma. To those students engaged in selected work, *certificates* will be given, stating the precise amount of work by them accomplished.

CLASSICAL COURSE. (B. A.)

First Year.

First Term—Latin Grammar and Reader, Practical Arithmetic, Mental Arithmetic, Introductory Algebra, Geography completed, Reading, Writing, Drawing, Spelling.

Second Term—Latin Grammar and Reader, Introductory Algebra completed, English Composition, Reading, English Grammar, Writing, Spelling.

Second Year.

First Term—Cæsar (books 1 and 2), Arithmetic to Ratio, History of United States, Roman History.

Second Term—Cæsar (books 3 and 4), Cicero (1 oration), Arithmetic completed, Latin Prose Composition (part II, 23 lessons), Physical Geography, Reading, Writing, Drawing, Spelling, Algebra (complete to Involution).

Third Year.

First Term—Cicero (5 orations), Latin Prose Composition, Advanced Algebra, First Lessons in Greek.

Second Term—Cicero (1 oration), Latin Prose completed, Algebra completed, First Lessons in Greek, Ovid's Metamorphoses (1,000 verses), Xenophon's Anabasis begun, Grecian History.

Fourth Year.

First Term—Xenophon's Anabasis (books 1 and 2), Greek Prose Composition (30 lessons), Geometry, Æneid (4 books).

Second Term—Æneid (6 books), Anabasis (book 3), Greek Prose Composition (30 lessons), Geometry completed, Algebra reviewed.

ENGLISH COURSE. (B. L.)

First Year.

First Term—English Composition, Practical Arithmetic, Mental Arithmetic, Geography completed, Introductory Algebra, Reading, Writing, Drawing, Spelling.

Second Term—Introductory Algebra completed, Botany, Etymology and Word Analysis, Reading, Writing, Drawing, Spelling, English Grammar.

Second Year.

First Term—English Analysis, History of the United States, Physiology, Higher Arithmetic to Ratio, Reading, Writing, Drawing, Spelling.

Second Term—Outlines of History, Arithmetic completed, Modern History, Physical Geography, Reading, Writing, Drawing, Spelling.

Third Year.

First Term—Algebra to Ratio, Zoölogy, Political Economy, Civil Government (elective), Natural Philosophy to Optics, English History to James I.

Second Term—Algebra completed, Natural Philosophy completed, English History completed, Rhetoric begun.

Fourth Year.

First Term—Geometry, Chemistry, English Literature, Astronomy, Meteorology (elements), Rhetoric completed.

Second Term—Geometry completed, Algebra reviewed, English Literature completed, Geology.

Compositions and weekly exercises in English throughout the course.

SCIENTIFIC COURSE. (B. S.)

First Year.

Same as English course, with the exception that those preparing to enter the Scientific course of the University will take Latin instead of Etymology and English Grammar.

Second Year.

Same as English course.

Third Year.

First Term—Algebra to Ratio, Zoology, French or German Grammar, French or German Reader, Natural Philosophy to Optics.

Second Term—Algebra completed, Natural Philosophy completed, French Grammar and Reader continued or German Grammar and Reader completed, Rhetoric begun.

Fourth Year.

First Term—Geometry, English Literature, Astronomy, Rhetoric completed, Chemistry.

Second Term—Geometry completed, Algebra reviewed, English Literature completed and reviewed, French or German reviewed.

Exercises in English throughout the course.

LATIN COURSE. (B. L.)

First Year.

Same as Classical Course, with French or German.

Second Year.

Same as Classical Course, with French or German.

Third Year.

First Term—Cicero (4 orations), Latin Prose Composition, Advanced Algebra, French or German continued.

Second Term—Cicero (2 orations), Latin Prose completed, Algebra completed, Ovid's Metamorphoses (1,000 verses), Grecian History, French or German continued.

Fourth Year.

First Term—Æneid (4 books), French Grammar reviewed and Reader completed or German Grammar and Marie Stuart, Geometry, a Play from Racine and Composition or a play from Schiller and Composition.

Second Term—Æneid (6 books), Geometry completed, Algebra reviewed, French Plays from Moliere or Corneille or German (Herman and Dorothea).

II. BELLES-LETTRES.

The studies in this department are adopted to more advanced students and embrace a period of two years. The satisfactory completion of the prescribed studies in this department will be required of all candidates for the "Full Somerville Course" diploma. The aim here is to bring the student into close and appreciative relations with the masterpieces in the world's literature—either through a study of these productions in the languages in which they were first given to the world or through the medium of the most desirable translations; to awaken and maintain, by critical and earnest study of our own English tongue and its vast riches of literature, a deeper regard in the mind of the student for the wealth of solid thought and linguistic power of the English Language. The importance and *reasonableness* of an effort to obtain a thorough knowledge of the resources of English and of American Literature will be constantly and faithfully held before the student. Only such students will be admitted to the Belles-lettres department (with *graduation* in view) as shall have first obtained a diploma in the College Preparatory or Academic or shall have shown, through careful examination, an equivalent. Diplomas from those High Schools of the State that are approved by University Committees will, however, be received in place of such examination, if presented within two years of their bestowment. Selected work in this department may be pursued by those students so desiring; but such students will not be regarded as candidates for the diploma of the "Full Somerville Course."

It is the earnest hope of the Somerville Management that the institution of the Belles-lettres department will in some large degree meet the approval and expectation of those parents or guardians who may desire for their daughters or wards an education that shall extend beyond the limits of ordinary High School instruction, yet who do not contemplate their entrance upon regular University work.

First Year.

First Term—Readings from American Literature. Homer (translation) studied with aid of Students' Mythology and Classical Dictionary, review of Ancient History, English History to George I., French History to Revolution of 1789, Greek (elective), Latin (elective), English Composition once each week, History of Architecture, History of Sculpture begun, French or German.

Second Term—English History completed, French History completed, Homer completed, readings from Draper's "Intellectual Development of Europe," lectures on history and theory of Art during last ten weeks of year, English Composition once each week, Latin (elective), Greek (elective), History of Sculpture completed, History of Painting begun, French or German.

Second Year.

First Term—Virgil (translation), Anglo-Saxon (elective), History of German Literature, History of French Literature, readings from Sismondi's "History of Literature of Southern Europe," studies upon History of Music, History of Painting completed, Hebrew Poetry and History, French or German, Latin (elective), Greek (elective), Mental Philosophy with lectures.

Second Term—Readings from works of leading dramatists preceding time of Shakspeare, Anglo-Saxon (elective), study of six Shakspearean Plays, study of two French and two German masterpieces, lectures on History and Theory of Art during last ten weeks of year, study of two Greek Plays, Hebrew Poetry and History, French or German, Latin (elective), Greek (elective), History of American Painting, Moral Philosophy with lectures.

A practical knowledge of either French or German is requisite for graduation in the Belles-lettres department; and students taking up work at the same time in *any* other department will need another year to complete this course.

PREPARATION FOR FOREIGN TRAVEL.

Courses of study extending over periods of one and two years have been prepared with special reference to a thorough appreciation on the part of the traveler for the historical associations, architectural inheritance and artistic treasures of the Eastern Continent. Classes sent abroad with competent guides. For plan of work under this head and for reference volumes required, address "Somerville School, St. Clair, Mich." The terms are the same as in Belle-lettres department (see "Expenses").

Respectfully,

C. C. WETZELL,
Principal.

DECISIONS

OF THE

SUPREME COURT OF MICHIGAN

ON MATTERS OF

EDUCATIONAL INTEREST.

FILED DURING 1886.

DECISIONS.

I.

TEACHER'S CONTRACT.

Crane v. School District No. 6, of the Township of Bennington. Case from Shiawassee; filed May 6, 1886.

MORSE, Justice.

After the plaintiff had taught school for the defendant for about ten weeks under the following contract, he claims he was discharged without cause by the school officers:

"It is hereby contracted and agreed between school district No. 6, of the township of Bennington, Shiawassee county, Michigan, and John T. Crane, a legally qualified teacher in said township, that the said John T. Crane shall teach the school in said district for the term of twenty weeks, commencing the 5th of November, 1883. And the said Crane agrees faithfully to keep a correct list of the pupils, and the age of each attending school, and the number of days each pupil is present, and furnish the director of the district with a correct copy of the same at the close of the school; to observe and enforce the rules and regulations established by the district board. Said district board, in behalf of said district, agrees to keep the school-house in good repair, and provide the necessary fuel to keep the school-house in a comfortable condition, and to pay the said John T. Crane for his services as teacher to be truly and faithfully performed and rendered, the sum of two hundred dollars, that sum being the amount they have both agreed on, to be paid on or before the 1st day of April, 1884, provided, that in case said Crane shall be dismissed from the school by the board for gross immorality, or violation of this contract, or shall permit his certificate of qualification to expire, or shall have said certificate annulled or suspended by the county board of examiners or other legal authority, he shall not be entitled to any compensation from and after such annulment, suspension, or dismissal.

In witness whereof, we have hereunto set our names this 22d day of November, 1883.

GEORGE E. MARTIN,
B. B. HARDY, and
JOHN T. CRANE, *Teacher.*

The plaintiff commenced suit in the recorder's court in Corunna, declaring in assumpsit verbally upon the contract. The defendant pleaded orally the general issue, with notice of recoupment, which notice is not set out in the record. Trial was had before a jury, who returned a verdict in plaintiff's favor for $100. The defendant appealed to the circuit, where, upon a trial, the jury also found in favor of the plaintiff, assessing his damages at $129.45.

The plaintiff based his right to recover upon this contract, and for the whole twenty weeks, less the sum of $30, which had been paid him. The defendant objected to the admission of the contract in evidence, on the ground that it was incumbent on the plaintiff to show that the making of the contract was authorized by a resolution of the school board before it was competent to be received in the case. The court overruled the objection, and admitted the contract as being in itself *prima facie* evidence that it was executed by the moderator and director, under proper authority to do so. The plaintiff was also allowed, against the obiection of the defendant, to show who were acting as officers of the school district at the time the contract was made. He further presented his certificate as teacher from the proper official, and testified that he taught the school ten weeks, and that during that time he received an order for $60, upon which he drew the money. A twenty-dollar order was also drawn, which was endorsed by the plaintiff. Some dispute arose in the testimony as to the disposition of this order, the plaintiff claiming that he left the order in a scrap-book at the house of the director, Mr. Martin, who took it and got it cashed, and applied the proceeds upon plaintiff's board bill, without his consent, and the director swearing that the plaintiff turned it out to him in payment of board. As the jury did not allow the value of this order to the plaintiff, but treated it as a payment upon his claim, the discrepancy between the two statements does not become material. Both orders were drawn upon the assessor by the director, and countersigned by the moderator, and the assessor paid them without question.

The main defense of the district was founded upon the decision of this court in *Hazen v. Lerche, 47 Mich., 626.* The contract was not signed by the assessor, and the defendant offered to show that there was no resolution of record in the book containing the proceedings of the district board authorizing the making of this contract, or the hiring of plaintiff; that there was no consultation of the three officers, or any two of them, at any time in relation to the hiring of plaintiff, and that they were not together when the contract was signed, and that there was no corporate action in relation to the execution of the contract, or the hiring of plaintiff. The court excluded the offered evidence, upon which ruling error is assigned. Testimony was also given upon the part of plaintiff tending to show that he performed his contract faithfully until discharged, after which he was ready and willing to perform, and that he was so discharged without just cause, and in violation of the contract. Evidence was introduced by defendant tending to show that the plaintiff voluntarily left the school, and that he was incompetent and unfit as a teacher for several reasons. The court submitted the case to the jury upon the theory that the plaintiff was entitled to recover upon the contract, if discharged without fault upon his part. He instructed them that, if plaintiff voluntarily left the service of defendant, he could only recover for the acual time employed in teaching; and that if they found him incompetent or unfit, or if he neglected the duties of a teacher, so that the sucess and usefulness of the school was impaired, then the officers had a right to discharge him, and he could only recover for the actual time he taught. He also charged them to deduct the $80 as a payment from the contract price, which they did.

We think the circuit court was right in his rulings upon the admission of testimony, and that he correctly stated the law to the jury in his charge.

It is not imperative that a contract of this kind shall be signed by all three of the officers. If, at a proper meeting, a majority should vote to employ a teacher, and contract with him, the other officer could not prevent the consummation of their action by

refusing to sign the contract. There might be other reasons not interfering with the validity of such a contract, why one of the officers did not sign it. A contract signed by a majority of the board, therefore, is presumptively valid on its face, and the circuit judge did not err in admitting it in evidence.

It was also competent to show, by parol proof, who were officers of the district. When it was admitted without any dispute that the plaintiff taught under this contract for ten weeks, with the sanction and consent of the officers, and that orders were drawn by the proper officers for his pay as such teacher, and cashed by the assessor, who did not sign the contract, without any objection, it became entirely immaterial what the book of record showed, or whether there was any corporate action in hiring him, or authorizing the contract. The defendant must be held not only estopped by the action of its officers from questioning the validity of the contract, but treated it as having fully ratified and confirmed it. School district officers cannot be permitted by the law to enter into a written contract with a teacher none of them denying the validity for ten weeks, or half the term, but recognizing it by making payments upon it, in which payments all join, and then, after the teacher, in the utmost good faith and reliance upon the contract, has taught that length of time, discharge him without cause, and plead in bar of his payment under the contract that they never met and consulted, nor took corporate action in hiring him, nor made any record in a book of the execution of the contract. It appears very clearly in this case that a majority of the school board assented to this contract in the first place, as evidenced by their executing it. It was afterwards ratified by all three of them. It was not necessary that there should be a direct proceeding with an express intent to ratify. "It may be done indirectly, and by acts of recognition, or acquiescence, or acts inconsistent with repudiation or disapproval." See *Scott v. Methodist Church of Jackson, 50 Mich., 532*, and cases there cited. It was not necessary that these three officers should formally meet together, pass a resolution confirming the contract, and record it, in order to ratify the action of the moderator and director in hiring the plaintiff, and executing the contract sued upon. Their acts, in drawing and paying the orders without any demur or protest, was a sufficient recognition and approval of the contract. If the assessor had refused payment of the first order drawn, the case might have come within the ruling of *Hazen v Lerche, 47 Mich., 626*. But here the agreement was acted upon by everybody until other controversies arose, and then it was too late to take exception to the want of formalities in engaging the teacher, or executing the contract.

We find no error in the proceedings. The judgment is affirmed, with costs.

The other justices concurred.

II.

POWERS OF MODERATOR *DE FACTO*.

Tallmadge School District v. Town Treasurer, Mandamus granted May 6, 1886.

CAMPBELL, *Chief Justice.*

The school district, complaining as relator, by Hiram Green, assessor, and Thomas J. Heald, director, asks a *mandamus* to respondent to compel him to pay over to the assessor the school moneys in his hands belonging to the district, upon certain warrants dated March 3, 1886, signed by Mr. Heald as director, and countersigned by James Dowris, as moderator. The only substantial objection made by the respondent is that Dowris is not the moderator, but that Chauncey H. Baldwin is the lawful incumbent. We discover no other question that seems of any importance.

The objection is based upon certain allegations, which are, in brief, that at the annual school meeting in September, 1885, two informal ballots were taken, in one of which Baldwin received one-half of the votes cast, and in the other one Dudley received a majority of two. That on a third formal ballot Baldwin received a majority of two. Both he and Dudley attempted to qualify, and shortly thereafter Baldwin procured an information to be filed against Dudley in the circuit court of the county. By some private arrangement between Baldwin and Dudley the latter allowed judgment to pass against him, but no judgment was entered in favor of Baldwin. This judgment was on January 14, 1886. The next day the assessor and director of the district, assuming that there was a vacancy in the office of moderator, appointed Dowris to act in that capacity, and he has since so acted. Baldwin is not shown to have taken any measures to induce or compel them to recognize him since the judgment in question.

It is a matter of public necessity that the school offices shall always be kept filled, and if they are not, the affairs of the district may become complicated and confused. Teachers must be paid, schools must be kept up and provided with necessaries of all sorts, and the school funds must be placed where they are available. For this purpose provision is made for the action of the director and assessor to fill any vacancy in the office of moderator without delay; while, in case of such an appointment, it can only last till the next annual school meeting in September, when the voters select a person for themselves.

The filing of an information on Baldwin's relation against Dudley was conclusive between them that Baldwin was not acting and that Dudley was. It was not competent for them to settle between themselves which should hold the office. No one could have that right who was not lawfully chosen, and that, if controverted, must be settled by public authority. If after the judgment against Dudley, Baldwin had applied to the other members of the board, and been recognized by them, he would have become an incumbent *de facto*, and his action would have been respected while in office. But he did not do this, and has not since attempted it, and we cannot recognize him when he is actually out of office.

We cannot, in this proceeding, discuss the propriety of treating the office as vacant immediately after the ouster of Dudley. If Baldwin had acted seasonably, and been lawfully entitled to the office, there may have been means of compelling his recognition. But the necessity existed then or soon after for some one to act, and the assessor and director, whether acting with strict regularity or not, are not shown to be in the wrong to such an extent that their action is null; and when it became necessary to draw orders and warrants, to which the moderator's signature is required, they cannot be held in the wrong for securing the action of such an officer.

While we must recognize Dowris as at least an officer *de facto*, we are not prepared to say that, on the record, he is not an officer in full right.

There is nothing showing conclusively, if admitted, that Baldwin was the real choice of the meeting. We cannot inquire into it, and therefore, have not called for any issue upon it. There are two affidavits concerning the alleged ballotings; but no attempt has been made to produce the record of the school meeting, which may not conform to these affidavits. There is certainly no propriety in taking what are called "informal ballots" at a regular election, and it is by no means certain that what is called an "informal balloting" was not supposed by the voters to be something else. The practice has no legal sanction, and is open to great abuse.

Mr. Dowris must, so far as this application is concerned, be treated as acting moderator, and the warrants must be paid. They are admitted to be for no more than is in

the treasurer's hands, and we see no objection to dividing them up, so long as they are only collectible by the assessor.

The return is open to criticism for the manner in which the facts are set out. If the treasurer was advised of doubts about the identity of the moderator, he would not be blameworthy for using reasonable means to have it settled. This, however, he should have done by simply presenting the fact of conflicting claims. It was not proper for him undertake to take sides in the matter, and set out, on his information and belief, what was not within his knowledge, as a presentation of the claims of one of the officers. And where a majority of the school board have recognized a moderator, and the only purpose of their action is to get the school money into the hands of the assessor, whose right is not questioned, the respondent took a serious responsibility in refusing to pay it over. It is not in accordance with public policy to have our local corporations blocked in their daily work by delays from personal dissensions, and where there can be no possible harm done by accepting existing facts, it is better to have disputants fight their own battles before the proper tribunals.

The *mandamus* must be granted.

(The other justices concurred.)

III.

TEACHER'S CONTRACT.

Holloway v. Ogden School District No. 9. Case from Lenawee, filed June 24, 1886:

CAMPBELL, Chief Justice.

Plaintiff sued defendant for a balance of wages as teacher, his contract, as he claims, being for $104, and the amount paid him being $52. A preliminary question was raised concerning jurisdiction. The case was begun before a justice upon a summons, which laid the damages within the sum authorized for his jurisdiction. The special count in the declaration was for the sum due under the contract, but the common counts laid damages at $500. No objection was made before the justice, and he gave judgment on the merits. In the circuit court no objection was made until the trial had progressed, showing the amount in controversy to be less than $100. Upon objection made, an amendment was allowed reducing the *ad damnum* clause. We have no doubt this was proper. The chief controversy was upon the validity of the contract, and the right to recover at all. The circuit court took the case from the jury, and ordered a verdict for the defendant.

Under our previous decisions, we think several errors were committed. The plaintiff showed a contract entered in a book kept by the district, signed by the director and assessor, but not by the moderator. The handwriting of both officers was shown, but it appeared they did not sign at the same time. It was held in *Everett v. Fractional School District No. 2 of Cannon Township, 30 Mich., 249*, that simultaneous signing was not necessary, and the contract, therefore, was sufficient on its face, and was admissible in evidence. We do not think any stronger testimony is required in school matters than in other corporate agreements, where a contract within the ordinary powers of the corporation is always presumed valid when regularly signed. We are also of opinion that, as there is no law restricting the books of school boards to any particular number or kind, there is no reason why such a book as the one shown here should not have the same value as any other corporation record, as at least presumptively, a corporate transaction. Had the court, as it should have done, received this record, the trial would, no doubt, have been abbreviated.

It appeared further that the teacher had taught the full time provided by the contract except upon certain holidays, which, as we have previously decided, the district could not deduct from his pay. *School District v. Gage, 39 Mich., 484.* It further appeared affirmatively that the officer not signing the contract knew that plaintiff was teaching, and not only made no objection, but concurred in paying the money that was paid. It is the business of school districts to keep up public school, and it is the duty of the officers to provide teachers, and to make contracts with them. It is their duty to know under what conditions a teacher, whom they know to be teaching, claims to act. Plaintiff had a right to suppose that his contract was a valid one when it was signed by a sufficient number of officers, and he was, with the personal knowledge of the whole board, permitted, and apparently encouraged, to proceed. A contract valid on its face, actually carried out in full, with the acquiescence of all concerned, cannot be subsequently repudiated. The board cannot, by abstaining from holding meetings, and from doing its duty, set up its own wrong in defense of an honest claim. The case is within the principle of the recent case of *Crane v. Bennington School District*, ante 105, where questions quite analogous were raised. We cannot but regret that any of our schools should be managed in the spirit shown on this record.

The judgment must be reversed, with costs, and a new trial granted.

(The other justices concurred).

IV.

Creager v. School District No. 9, Township of Wright. Case from Ottawa. Filed June 27, 1886.

MORSE, Chief Justice.

The plaintiff brought suit in justice's court to recover the contract price for building a fence around defendant's school site. He recovered a judgment of $30 and costs. Upon appeal to the circuit court for Ottawa county, and trial before Hon. Dan J. Arnold, circuit judge, without a jury, the defendant had judgment. The plaintiff brings error to this court, and insists that the finding of facts does not support the judgment, and asks that judgment be entered here for the plaintiff for the same amount rendered by the justice, that being the sum agreed upon in the contract hereinafter mentioned.

The facts are substantially as follows: A school-house was being erected upon the school site in October, 1884, to be completed in December of the same year. On the 4th day of October, 1884, at a special meeting of the electors of the school district, legally held, it was voted to build a line fence around said site; the kind of fence, and the manner of its erection being specified. It was also ordered at said meeting that the district board build or cause such fence to be built. Soon afterwards the district board met, all being present, and estimated the cost of the fence at $32. No action was taken, however, in reference to letting the job of building the same, or any steps taken towards building it. Besides the building of this fence, there were other contracts to be let; such as building a wood-shed and moving privies. The officers at this meeting had some talk about letting these jobs, and the moderator told the director to negotiate with parties for doing these jobs. The assessor did not hear this, however, and both he and the moderator left the meeting, understanding that the school board would meet again in the near future to let these several contracts. Soon after this meeting, the director, assuming to act for the district, made an agreement with the plaintiff to build this fence according to the specifications as voted, for the sum of $30. The other members of the board did not know of the making of this contract at the time it was made, and never either authorized or ratified it. After the plaintiff had procured the materials

for the fence, and placed the same upon the ground, and dug the post holes, he was notified by the assessor that he had better have an understanding with the board, or he might not get his pay. The plaintiff completed the job in accordance with the agreement, and the director drew an order upon the assessor for $30, and delivered it to the plaintiff. He presented it to the moderator, who refused to countersign it. The plaintiff subsequently lost the order. Neither the moderator nor assessor knew that the director intended to let the contract to build the fence until it was in process of erection. The school board never accepted the fence as built. The matter was brought up at a special meeting of the district electors, who refused to accept the fence or pay for it. The school was being taught at the time the fence was contracted for, or at the time it was completed. The school-house was finished about December 10, 1884. The evidence fails to show how long after the house was completed before a school was taught therein. The plaintiff claims that this fence is a necessary appendage to the school-house, and that, under the statute, the director had the power and authority to let the contract. The circuit judge thought the school board only had the power to make such a contract, and, as neither they nor the school district had accepted the fence, or ratified in any way the director's contract, ruled that the plaintiff could not recover.

There is no dispute but the fence was built just as the district wanted it, and for a less price than the board estimated it would cost to erect it. The plaintiff was not forbidden to build it. The assessor and moderator, and presumably most of the district, knew that he was building it, and said nothing except the remark of the assessor that he better have an understanding with the board or he might not get his pay. This might have been taken by the plaintiff as relating simply to the price of his work. He was not informed, in any manner, by these officers, that the director had no power to make the contract, but that the board alone could let the job or authorize the work. It does not appear that the fence has been removed by anybody, or that the district is unwilling to enjoy the benefits of the plaintiff's money and labor invested in the fence. The defense to his claim is purely technical. There is nothing either to show that the director did not act in good faith believing that he had the power, or that the assessor or moderator called his attention to his want of authority until after the work was done. There is no equity in the refusal of the district to pay the plaintiff, nor do I think their action can be sustained by the law of the case.

It appears that the building of this fence was provided for by the electors of the district, and it is not claimed that anything further was necessary to be done by the voters of the school-district. The only question is whether the officers of the district, acting as a board, should have let the contract for this work, or whether the director alone had authority, by virtue of his office, under the statute, to provide for the building of the fence. I find no authority conferred upon the district board, by the statutes, specifically to purchase the necessary appendages or school apparatus for the school-house; nor is the subject of a fence, wood-shed, well, or privy mentioned anywhere in the school law. But the sixth subdivision of section 5073 of Howell's Statutes authorizes the director "to provide the necessary appendages for the school-house and keep the same in good condition and repair during the time school shall be taught therein." Is a fence a necessary appendage for the school-house under this statute? We think the fence, at least in this case, was a necessary appendage to this school-house. It was a line fence, and therefore presumably necessary to be built. It comes within the same category as a well, wood-house or a privy, and has been held a necessary appendage in *Hemme v. School District, 30 Kan., 377.* While it is not an annexation to the school-house, it can

certainly be considered an accessory to it. The word "appendage," as used in our school statutes, does not mean simply the school apparatus to be used inside the building; nor do I think it can be limited to such articles as brooms, pails, cups, etc., but must be construed in a broader sense, as it has in other courts, to include fuel, fences, and necessary out-houses.

Subdivision 7 of section 5052 of Howell's Statutes authorizes electors of the school-district to impose a tax to keep the school-house in repair, and to provide the necessary appendages and school apparatus, "limiting said tax, however, so that it shall not exceed one-half of the amount which the district is authorized to raise for building school houses." If the items of fuel, fences wells, and out-houses do not come properly within the term "appendages," then the district has no power, under the statute, to impose a tax to purchase or erect them. It is claimed, under the statute last referred to by defendant's counsel, that to give the director power to contract for the construction of a fence would give him authority greater than the electors of the district have, as they are limited in such expenditures, while his discretion would be absolute. This argument cannot avail in the present case, as the district distinctly authorized the erection of the fence as it was built, and the expenditure was within the limit. We do not wish to be understood as deciding that the director would, in all cases, be authorized to provide a fence, or to build it as he chose, without the assent or direction of the district. What we hold is this: the district is authorized to vote a tax to build a necessary appendage for a school-house. In this case the fence was a necessary appendage. The district voted that it should be erected, and specified the manner in which it should be built, and the materials of which it should be composed. There is no provision of the statute conferring upon the district officers, as a board, any authority to build a fence or provide necessary appendages; but the director is given the power to provide such appendages, and it is made his duty to do so; and we think he had a right to let the contract for this fence, and the district is liable for it.

It is further contended by the counsel for the defendant that, even if this fence can be considered a "necessary appendage," the power of the director to build it is confined by the statute to such time as school is being taught in the school-house. There is no good reason for such a construction of the statute, as nearly all the things to be provided by the director ought to be on hand when school opens, and should be furnished or built beforehand. The comma in the statute correctly signifies the meaning of the clause. As it reads, there is no restriction upon the time of providing the appendages, but his duty to keep them, with the school-house, in good condition and repair, is confined to during the time "school shall be taught therein."

It is further urged, against the plaintiff's right to recover, that he has mistaken his remedy; that he should have proceeded by *mandamus* to compel the moderator to countersign his order, and the assessor to pay it. This question is raised, as appears by the record, for the first time in this court. It is too late now to interpose this obstacle in the plaintiff's way. He had judgment in justice's court, and the defendant appealed to the circuit court, where the case was tried and disposed of upon the theory that the director had no authority to make the contract. The defendant's brief shows that this idea came after it was printed, and no mention of this defense is made in plaintiff's brief: his counsel not being present at the oral argument. The defendant having defended in this action, without demurrer or protest as to the right of the plaintiff to proceed in *assumpsit*, he cannot now take advantage of this claim, even though it might have been a good defense if raised in time.

The judgment below is reversed, and judgment will be entered here for the plaintiff for the sum of thirty dollars, and interest from the commencement of suit, amounting, principal and interest, at this date, to thirty-one dollars, with costs of all three courts.

Justices Campbell and Sherwood concurred. Justice Champlin concurred in the result.

V.

SCHOOL BOARD—FEMALE SUFFRAGE.

Mudge v. Jones and another. Case from Barry. Filed January 6, 1886.

CHAMPLIN, Justice.

The plaintiff brought an action of trespass on the case against the defendants, as inspectors of election, to recover damages for refusing to receive the vote of plaintiff for a member of the board of education for the city of Hastings at the election held therein on the seventh day of April, 1884. The declaration is as follows:

"Barry county, ss.: And now comes Ruth K. Mudge, the plaintiff herein, by her attorneys, Smith and Colgrove and C. G. Holbrook, and complains of Allen Jones and William H, Stebbins, as inspectors of election in and for the Third ward of the city of Hastings, defendants herein, in an action of trespass on the case, for that heretofore, to-wit: On the first Monday of April last the said plaintiff was, and for more than one year next immediately preceding that date had been, and now is, a citizen of the city of Hastings, and a resident in the Third ward of said city. And the plaintiff further alleges that she is a citizen of the United States and of the State of Michigan, and she is of the age of twenty-one years and upwards, to-wit, of the age of sixty years, and during all the time she has resided in said Third ward of the said city of Hastings, has owned in her own right and name in fee-simple a large amount of real estate and personal property situated in said Third ward, liable to assessment for school taxes, and upon which she actually pays a large amount of school taxes for the support of the public schools in and for the city of Hastings, and that on the said first Monday of April last she was and now is a legally qualified voter for school purposes, and had a lawful right on that day to vote at the election held in said Third ward of the city of Hastings for one member of the board of education of the city of Hastings. And the plaintiff further alleges that on the said first Monday of April last the annual city election was held, and that the said defendants are and were then residents of said Third ward, and aldermen of said ward, and inspectors of election held in said ward on that day, and acted as such inspectors of election, whereby it became their duty to receive and count the vote of said plaintiff at such election for one member of the board of education of the city of Hastings: and she alleges that she did present herself on that day at the voting precinct in said Third ward of said city, before said defendants as inspectors of said election, and then and there offered to vote, and tendered her vote for one John C. Lampman as and for a member of the board of education in and for said city, whose name was printed on a ticket separate from all other city officers to be voted for in said ward, and claimed the right to do so, and then and there offered to be sworn as to her qualifications under the law, but that the said defendants, as inspectors of election in and for said Third ward of said city, did then and there, arbitrarily, unjustly, and unlawfully deny the right of said plaintiff to vote for one member of the board of education of the city of Hastings, and did then and there arbitrarily, unjustly, and unlawfully refuse to receive the said vote of said plaintiff, and did refuse to count the same, and

did refuse to administer to plaintiff the oath as to her qualification under the law, to vote for a member of said board of education, whereby said plaintiff was wholly deprived of her lawful right and privilege of voting for a member of the board of education for the city of Hastings to her great damage, to-wit, one hundred dollars.

SMITH & COLGROVE,
C. G. HOLBROOK,
Attorneys for Plaintiff.

The defendants' plea filed in this court was the general issue.

The cause came on to be tried in the circuit court, without a jury, who found the following facts, based upon the stipulation of the parties, namely: "Plaintiff is a widow, and on the first Monday of April last was a resident of the Third ward of the city of Hastings, and had been for more than a year then next preceding; that she was then of the age of twenty-one years and upwards, and a citizen of the State of Michigan, and that she was then and there the owner in her own right and name of real and personal property situated in said Third ward liable to assessments for school taxes, and on which she paid school taxes for the support of the public schools of said city. Defendants, on said first Monday of April last, were aldermen of the Third ward of the city of Hastings, and were, by virtue of said office, inspectors of the general city election held in said Third ward of said city, on the said first Monday of April, last. Plaintiff, at said general city election, offered and tendered her ballot for one member of the board of education of the city of Hastings, to be then and there elected in and for the Third ward of the city of Hastings. Said ballot was a printed ticket, containing the name and office of a candidate for member of the board of education in and for said Third ward, and was separate from the ballots for all other city officers. Plaintiff then and there offered to be sworn as to her qualifications as such voter. Said defendants, as such inspectors of election, refused to swear said plaintiff as to her qualifications as such voter, and refused to receive her said vote. The board of education of the city of Hastings was incorporated by act of the Legislature of the State of Michigan, approved April 2, 1873. From and including said year of 1873, up to said year 1884, no woman had ever voted at elections for member of the board of education of said city, nor offered to vote at such elections. That a few days previous to said general election of April, 1884, said inspectors of election were informed that a certain woman would offer to vote at said general election, and accordingly, acting under express authority of the common council of said city, applied for counsel in the premises of reputable legal counselors, by whom said inspectors were advised that women had no legal right to vote for such members of the board of education at said election; that defendants refused to receive the vote of said plaintiff in good faith, relying upon said legal counsel, and believing the same to be correct."

Upon the above facts the court found, as matter of law, that the defendants were not liable to the plaintiff in the action, and entered a judgment in their favor of no cause of action, and that neither party recover costs.

By section 1 of the act incorporating the board of education of the city of Hastings, it is enacted that the city of Hastings shall constitute one school district. The city, for municipal purposes, is divided into four wards, and at all annual city elections, each ward is a voting precinct. The aldermen of the ward are created *ex-officio* inspectors of election in their respective wards.

Section 2 of the act provides that "There shall be elected, at the annual city election, on the first Monday in April, in the year 1873, and every year thereafter, on a

ticket separate from other city officers, in each of the wards of the city of Hastings, one member of the board of education, who shall hold his office for the term of three years from and after the first of July next ensuing." The act nowhere says by whom the members of the board shall be elected, nor in any manner attempts to prescribe the qualifications of the electors who may vote for such members. The election, however, being required to be held at the annual election of the municipality, it is to be presumed that the members were to be elected by those having the qualifications of electors at such election for city officers. The charter provides that the officers enumerated shall be elected from among the qualified electors of the city. Act No. 228, sessions laws 1873. The qualification of such electors is required to be the same as those in the townships (Act No. 216, session laws 1871), and those are defined by the general law to be as follows: "Each inhabitant of any township having the qualifications of an elector, as specified by the constitution of this State, and no other persons, shall have a right to vote on all matters and questions before any township meeting." Howell's Statutes, section 781. The constitution confines the right to vote to male persons.

The plaintiff claims, however, to exercise the right of suffrage by virtue of section 10 of the act incorporating the board, taken in connection with section 5049 of Howell's Statutes, relating to primary schools. Section 10 reads as follows: "All provisions of the general laws of this State relative to common and union schools shall apply and be in force in said city, except such as may be inconsistent with the provisions of this act, or with the by-laws and ordinances of the board of education, made under this act." And section 5049 reads as follows: "Every person of the age of twenty-one years who has property liable to assessment for school taxes, in any school district, and who has resided therein three months next preceding any school meeting held in said district, or who has resided three months next preceding such meeting on any territory belonging to such district at the time of holding such meeting, shall be a qualified voter in said meeting on all questions; and all other persons who are twenty-one years of age, and are the parents or legal guardians of any children included in the school census of the district, and who have for three months as aforesaid been residents in said district, or upon any territory belonging thereto, at the time of holding such school meeting, shall be entitled to vote on all questions arising in said district which do not directly involve the raising of money by tax."

Upon the passage of the law incorporating the board of education the law, in express terms, constituted the whole territory embraced in the corporate limits of the city one school district, and placed the schools therein under the control of the board. No school meeting could thereafter be held therein, because none was authorized by law. The qualifications of electors at school meetings cannot be ingrafted upon or given effect at the elections held under the act, because manifestly inconsistent therewith. If a person qualified to vote at a school meeting, where all the electors are convened at one place in the district, is entitled to vote in a ward of the city at the annual election, there is not any reason why such person may not vote in any ward in the school district, since it is residence in the school district which qualifies him, and the primary school law does not restrict his residence to the ward. If this should be held to be the true construction of the law, it might be found that some persons would vote for as many members as there were wards, or combine upon some one or more particular candidates, and by importing votes from other wards elect a member who otherwise might not have been elected by the electors of his ward. Neither do I see any reason why the plaintiff is not as fully qualified, under the provisions of section 5049, to vote in any of the other

three wards of the city as she was to vote in the Third ward. They are all within the same school district. But the fact is that the annual city election is not a school meeting, and the primary school laws are inapplicable to such elections. Until the Legislature confers the right of suffrage upon females in the election of members of the board of education, they must continue to be elected by the electors qualified to vote for city officers at the annual township elections.

The judgment must be affirmed with costs.

(The other justices concurred.)

VI.

JOINT MEETINGS OF SCHOOL INSPECTORS.

Coulter and Others v. Board of School Inspectors. Certiorari. Filed January 27, 1886.

CHAMPLIN, Justice.

Fractional school district No. 7 of Grant was organized on June 7, 1882, and comprised the territory embraced in sections 23, 24, 25, 26 and 36 in the township of Grant, and sections 19, 29, 30 and 31, in what was then the township of Sheridan. In 1884 the township of Arthur was organized, which embraces that portion of the fractional school district which lay in the township of Sheridan at the time of the organization of the township of Arthur, and no change was made in the boundaries of the school district, but it continued to perform the functions of a school district until August 8, 1885.

Plaintiffs were owners of real estate in that part of the fractional district lying in the township of Arthur, and, as such owners, were taxed for the purpose of building a school-house in said fractional district in each of the years 1882, 1883, 1884. The boards of inspectors of the townships of Grant and Arthur met in joint meeting on the 8th day of August, 1885, and detached the the territory in Arthur township that was embraced in school district No. 7, with the exception of the north half of the southwest quarter of section 31, belonging to William Anderson. This action of the joint boards is alleged to be illegal and void for the following reasons:

First, Because the said boards of school inspectors had no jurisdiction to act in the matter of the division of said fractional school district No. 7 of Grant without the consent of a majority of the resident tax-payers of said district, and that in so dividing said district they acted in excess of their jurisdiction, and in violation of law;

Second, Because the said boards of school inspectors had no jurisdiction to set off the lands of relators from said fractional school district No. 7 of Grant into another district within three years after the same had been taxed for the purpose of building a school-house in said district without the consent of the owners thereof, and that in so setting off said lands they acted in excess of their jurisdiction according to law;

Third, Because the action of said boards of school inspectors, in dividing said school district No. 7 of Grant, and in setting off the lands of relators therefrom, and in altering the boundaries of said district at their said meeting of August 8, 1885, without proof of the posting of a notice of such meeting at three public places in the townships of Grant and Arthur, was without authority of law, and said boards had no jurisdiction to act in regard to the same without such proof, and such action was therefore without jurisdiction, and void;

Fourth, Because said boards of school inspectors of Arthur acted without jurisdiction, and in excess of their jurisdiction, according to law, in organizing said school district No. 1 in said township of Arthur at their said meeting of August 28, 1885, from territory

so set off and detached from said fractional school district No. 7 of Grant, including the said lands of relators, without the consent of the owners thereof within three years after the same had been taxed for the purpose of building a school-house therein.

The township boards of school inspectors have made return to the writ issued in this case, from which it appears that the following is the notice of the joint meeting held in August, 1885, viz. :

"Notice is hereby given that a joint meeting of the boards of school inspectors of Grant and Arthur townships will meet August 11, at the clerk's office of Grant, at 10 o'clock A. M., for the purpose of considering the question of detaching the territory of Arthur township, that is in fractional school district No. 7 of Grant."

GEO. W. SMITH, *Clerk of Grant Township,*
C. W. PIERSON, *Clerk of Arthur Township.*

Dated this 27th day of July, 1885.

They return also that the meeting was held on the eighth day of August, 1885, and that no evidence was before them of posting the notices, but they return "that a notice of the meeting to be held by said boards of inspectors on said eighth day of August, 1885, was duly posted at three public places in the townships of Grant and Arthur within the legal time ; but that no sworn proof of such posting was had before said joint meeting." It will be perceived that this notice was for a meeting of the boards jointly on the eleventh of August, and it so appears in the return on file, and the meeting at which the action was had was on the eighth day of August. So far as appears from the return, no notice of meeting on the eighth day of August was ever given. The notice of the meeting was jurisdictional, and should have been given as required by law, and, before the boards were authorized to act, proof of the posting in time and place specified in the statute should have been filed with the clerk of the joint board. *Dupont v. Highway Com'rs.*, 28 Mich., 362 ; *People v. Highway Com'rs*, 14 Mich., 528 ; *Passage v. Inspectors of Williamston township*, 19 Mich., 330 ; *Prescott v. Patterson*, 44 Mich., 525. But an equally serious objection is that the boards had no authority to detach this territory where the lands therein had been taxed for building a school-house, within three years, without the consent of the owners. The lands so detached had been assessed and taxed for building a school-house in fractional district No. 7, within three years, and the action of the boards was without the consent of these tax-payers and against their written remonstrance. Nor does it render such action legal that the territory detached was not at the same time attached to another district. It was done with the object that such detached territory should be either erected into a new district or attached thereto and the return of the township board of inspectors of Arthur shows that a new district, embracing the detached territory, was erected into a new school district on the twenty-eighth day of August, 1885. The action of the joint boards may have been for the best interests of all concerned, as claimed in the return of the board of inspectors of Arthur, but this question cannot be considered. We are satisfied that their action was contrary to law, and must be altogether set aside, quashed, and held for naught.

(The other justices concurred).

VII.

APPORTIONMENT OF PRIMARY SCHOOL INTEREST FUND.

Moiles, Assessor, v. Watson, Treasurer. Mandamus granted April 8, 1886.

SHERWOOD, justice.

The relator in this case is the assessor of school district No. 1, in the township of

Detour in the county of Chippewa. The Superintendent of Public Instruction, in May. 1885, apportioned off the primary school interest funds to the township of Detour, and to the said school district No. 1 the sum of $188.48, and which was on the tenth day of August, 1885, paid to the respondent by the county treasurer. On the twelfth day of October following a warrant drawn by the proper officers of the said school district, was presented by the relator to the respondent for payment, and payment thereof was refused upon the following grounds:

First. That the relator was not a duly qualified officer;

Second. That the township clerk of said township of Detour had made no apportionment of the said school fund to said district No. 1, and the respondent relies on sections 5088 and 5089 of Howell's statutes to sustain his position.

It appears from the records that the township of Detour contained but four school districts in the year 1884, and down to the time of filing relator's petition. Howell's statutes, section 5029, provides that the Superintendent of Public Instruction shall, previous to the tenth day of May in each year, apportion the primary school interest fund among the several townships and cities in proportion to the number of children in each between the ages of five and twenty years, as the same shall appear by the reports of the several boards of school inspectors made to him the year before. The report of the school inspectors for the township of Detour for 1884 contained statements of two districts only, viz: No. 1 and No. 3. District No. 3 had 31 children betwen the ages required, but had but three months school during the year. Five months school was necessary to entitle it to a share of the fund, unless otherwise ordered by the superintendent in his discretion upon a proper showing. See Howell's Statutes, sections 5031, 5032. No such showing was made as is provided in the section referred to, and the superintendent did not include district No. 3 in his apportionment of the fund, but directed that the amount apportioned to the township be paid to district No. 1, and certified the apportionment to the township of Detour accordingly.

The money, under such certificate, was received by the county treasurer and paid over by him, as he had received it, to the township treasurer, who is the respondent.

It will be noticed that the direction for its payment was made by the Superintendent of Public Instruction under the statute, and this instruction followed the money into the hands of the township treasurer, and no other or further apportionment was necessary to be made. Indeed, none could be made by the township clerk. He could neither alter nor modify the doings of the Superintendent of Public Instruction in the premises. There is no question made but that the person signing the order for the money was the director *de facto* of district No. 1; and whether he was or not such officer *de jure* cannot be determined in this case. *Mead v. Treasurer of Ingham County*, 36 Mich., 416. The proper order was presented to the respondent for the money, signed by the proper officers of the district, and it was his duty to have paid it over when the demand was made upon him for it. Whatever remains thereof in his hands must still be paid to the district, and a *mandamus* will be granted to compel such payment.

(The other justices concurred).

VIII.

FORMING FRACTIONAL DISTRICTS.

Fractional School District No. 3, etc., v. Boards of School Inspectors.

SHERWOOD, Justice.

The petitioners in this case bring *certiorari* to review the proceedings of the joint

boards of school inspectors of the towns of Watson, Wayland and Martin in Allegan county, had at a meeting of said boards held April 26, 1886, for the purpose of forming a new school district out of territory embraced in school district No. 8 of the township of Wayland, and fractional school district No. 3 of Martin and Watson. District No. 8 of Wayland, before the change attempted, was all in Wayland, and district No. 3 was composed of territory mostly in Martin, but a small portion was in Watson. It was the intention of the inspectors at their meeting on the 26th of April, to form a new fractional district out of territory lying in No. 3 and No. 8, aforesaid. The records of this meeting, and its doings, are contained in the record in this case.

It is claimed the action of these boards was void for the following reasons:

First, No notice was actually given of the meeting, as required by law;

Second, There was no proof of the posting and giving of notices of this meeting required by law before joint boards at the meeting of April 26, 1886;

Third, The boards of school inspectors made no record of the formation of a school district sufficient to constitute a new district.

I think we must hold these objections well taken. The statute requires before taking the action had in this case, the clerks of the several townships interested to give at least ten days' notice of the time and place of meeting of the inspectors, and of the alterations proposed, by posting such notice in three public places in each township, one of which shall be posted in each of the districts that may be affected. Section 5040 Howell's Statutes.

The record shows no notice given as required by the statute. A copy of the notice pretended to have been posted nowhere appears in the record, and the affidavits made relied upon to show the posting were not made until the twenty-seventh day of July, 1886, three months after the meeting was held, and more than twenty days after the writ in this case was issued. If these affidavits could be regarded as showing the posting of proper notices, still the proceedings, as shown by the return, would be unauthorized, as they show but one notice posted in the township of Wayland. Important interests are not unfrequently committed by the statutes to those local boards, and in their action, if not carefully taken and considered in this class of cases, they may create greater expense and inconvenience than they seek to remove. It is, therefore, of the utmost importance that all persons to be affected by their action should have an opportunity to be heard before it is taken. It is for this purpose that the statute has provided for ample notice to be given of the time, place and object of the inspectors' meeting, and, until the notices provided for have all been given and posted as required, the inspectors have no power to act. The notice is jurisdictional.

This court held in *Coulter v. Board of School Inspectors*, 26 N. W. Rep., 649, "That the notice of the meeting was jusrisdictional, and should have been given as required by law; and before the boards were authorized to act, proof of the posting in time and place specified in the statutes should have been filed with the clerk of the joint board." We adhere to these views, and which are decisive of this case.

The following cases will also be found to have a bearing upon the case as presented by the record: *People v. Highway Commissioners of Nankin*, 14 Mich., 531; *McCaslin v. Camp*, 26 Mich., 390; *Dupont v. Highway Commissioners of Hamtramck*, 28 Mich., 363; *Passage v. Inspectors of Williamston*, 19 Mich., 330; *Prescott v. Patterson*, 44 Mich., 525.

The action of the boards of school inspectors of the townships of Martin, Wayland and Watson, in this case, must be set aside, and the proceedings had therein quashed.

(The other justices concurred.)

IX.

OLD AND NEW DISTRICTS.

School District No. 3 of the Township of Everett v. School District No. 1 of the Township of Wilcox and others.

MORSE, Justice.

The bill of complaint in this case avers that January 1, 1876, the complainant school district consisted of nine sections of land in the county of Newaygo; that the inhabitants of said district lived almost entirely within the boundaries of two villages, White Cloud and Alleyton, situated about one mile apart. The voters of said school district agreed to build a union school-house as near as possible midway between the two villages, to accommodate all the scholars; that a site was chosen accordingly, and the same conveyed by James Alley & Co., the owners of the land, to said school district, in consideration of the sum of one dollar, and that the same be used for school purposes and a school building, and that a school be maintained thereon. The district commenced to build a school building on said site, two stories high, at a great expense; did not wholly complete the same because of want of funds, yet the lower rooms of said building were used for school purposes by the whole district for about two years. On the 15th day of January, 1880, the board of supervisors of Newaygo county established a new township out of territory belonging to said township of Everett, and named it Wilcox. By this action five and one-fourth sections of land belonging to complainant's school district was incorporated within the territory embraced by the new township. On the first Monday in April, 1880, the voters of the township of Wilcox elected the town officers for the new township, which said officers duly qualified and entered upon their respective duties.

By the setting off of such territory from Everett to Wilcox the three school inspectors of the township of Everett became residents of the new township, and it is claimed became, therefore, officers of the township of Wilcox. But they continued to act as a board of inspectors for Everett, and on the 7th day of February, 1880, held a meeting, and acted upon a petition to detach all the territory of the complainant school district embraced in the township of Wilcox. The signers to said petition all resided in Wilcox. The said board of inspectors attempted and pretended to detach the same, being five and one-fourth sections as aforesaid; and, joining it with other territory, formed a new school district, to wit, the defendant school district The said board then adjourned to the 24th of February, 1880, and from thence to the 28th of the same month, when it adjourned finally. The members of said board were all signers to the petition upon which they acted, and were promoters of and interested in the scheme to detach said land and form said new school district. The action of said board in taking away said five and one-fourth sections, leaving only three and three-fourths sections in the old district with the large, expensive, and uncompleted school building in said old district, is alleged to be partial, unfair, inequitable, unjust and illegal. By the division of the territory the union school building became inconveniently located for school purposes by said complainant school district, and it is averred that it was the duty of said school inspectors to have advertised and sold said school building, and to have apportioned the proceeds between the two districts. But they did not do so. They valued the school property, however, at $2,500, and apportioned it as follows: $1,679.32 to defendant school district, and the balance to complainant. The valuation was made on the 28th day of February, 1880, but the apportionment did not take place until the 25th day of

March, 1880, at which time said inspectors met, without any notice and not pursuant to any adjournment, in a drug store in the village of White Cloud. The inhabitants of complainant school district knew nothing of this apportionment until steps were taken to have said sum of $1,679.32 spread upon the taxable property of said district.

It is further averred that said school building was not worth $2,500, and it is not worth over one thousand dollars, and would not bring that amount if offered for sale, as its value depends entirely upon its joint use for school purposes by the aforesaid two villages. The defendant school district claims this indebtedness of $1,679.32, because said building in the division, was left situate upon lands embraced in the complainant school district. The said defendant school district caused the said sum to be certified to the township clerk of Everett as so much money due from the complainant to it, and to be raised by taxation upon its taxable property. It is further alleged that since the division of the territory the school building has been entirely unsuitable, and so inconvenient as to be nearly worthless as a school building for school purposes, and that it is impossible to remove said building to a locality convenient for school purposes within the territory now left to complainant. The bill further shows that the township clerk of Everett certified the said sum to the supervisors of said township, and the board of supervisors have certified to and directed the defendant, John W. Ohernberger, supervisor of said township, to spread the said sum of $1,679.32 upon the tax roll of his township, and upon the taxable property of the complainant school district, which he threatened to do. The complainant therefore prays that the action of the school inspectors in making said apportionment be declared void, and that the supervisors be enjoined from spreading the said sum of $1,679.32 upon the roll and property of the district.

A general demurrer was filed to this bill, and upon argument in the court below, the bill of complaint was dismissed. The bill appears to have been filed in the last of October, 1885, the jurat being dated October 26, 1885. It appears that in the October term of this court, 1883, a *mandamus* was granted, compelling the clerk of the township of Everett to certify to the supervisor the amount of said sum, $1,679.32. The *mandamus* proceedings were commenced in 1881, and, under the petition and answer, issues of fact were made and set down for trial. A jury found against the respondent, and on the hearing here the case was practically abandoned by the respondent.

There seems to be no excuse for the delay in instituting the equity proceedings. And it was too late when this bill was filed to question anywhere, in law or equity, the organization of the defendant school district. Whatever may have been the bias or interest of the school inspectors, or however unfair or unjust their division of the territory of the old school district, the delay in proceeding to remedy the same has been fatal to any relief in that direction. Under the statute, the defendant school-district must be presumed to have been legally organized. It had exercised the franchises and privileges of a school-district for over two years when this bill was filed. See Howell's Statutes, 5037.

By reason of this statute there is only one objection set forth in complainant's bill that can now be urged against the spreading of this tax against the taxable property of the complainant, and that is the want of notice of the meeting of the school inspectors to make the apportionment. It appears from the record of that board, which is made a part of the bill of complaint, that the board, in acting upon the petition for the detachment of the territory, adjourned from time to time, the first adjournment being for ten days, for the purpose of taking the advice of the Superintendent of Public Instruction and the prosecuting attorney. At the first adjourned day, February 17, 1880, the division or the detaching of the territory was made, and it was voted to adjourn

one week to ascertain the amount due each of the districts made by the new formation, and to appraise the property. At that time the board met and adjourned to February 28, 1880. At that date the property was appraised as follows: New school building and lot, $2,500; old school-house at Alleyton, $50. On motion board adjourned. March 20, 1880, the board met, all the members present, and made the apportionment heretofore referred to. There is no evidence of any notice having been given of this meeting. It is claimed that their action was void for this reason. I am of the opinion that the objection is well founded. The law in force at the time of the meeting of inspectors was imperative that the township clerk should give notice of every meeting of the board of inspectors, by posting notices of the same in three public places in the township at least ten days before such meeting. Session laws 1867, p. 79; session laws 1873, p. 81. This requirement was not dropped out of the statutes until 1881. See session laws 1881, section 6, chapter 4, act number 164, page 178. As the tax has not yet been spread upon the supervisor's roll of the township, I do not think the delay in filing this bill should deprive the complainant of relief against the collection of a manifestly void tax.

It is urged by the counsel for the defendant school-district that the complainant cannot maintain this bill, having no right to file it; that the tax-paying electors of the district are the persons alone to be injured, and the proceedings to prevent the enforcement of the tax should have been taken by them. The school-district, under our statutes, is a corporation, and, as such corporation, is represented by three officers: a moderator, a director and assessor. The affairs of the district are managed and controlled by them under certain restrictions. The complainant school-district was vitally interested in the apportionment of the property of the old district, and, by every principle of law and justice, entitled, independent of the mandatory requirement of the statute, to notice of the meeting and proceedings of the board of school inspectors to make such apportionment. It had a right to complain of the void and illegal action of the inspectors, and to act through its officers to remedy it. There was no reason for an appeal to the township board, because said inspectors manifestly acted without jurisdiction, and it is also doubtful if an appeal could properly have been taken. The action of the inspectors being on the 25th of March, and on the first Monday of April following township officers were elected and qualified in the new township of Wilcox, and there were thereafter two township boards, each exercising lawful jurisdiction over their respective portions of the territory of the old school-district. The statute does not expressly meet or provide for such a contingency. See Howell's Statutes, sections 5129, 5130.

The bill is signed and verified by the assessor of the school-district. I have no doubt of the right of the school-district, as a body corporate, to interfere, and ask the aid of equity to prevent the consummation of an illegal and void apportionment and creation of a debt against it by the collection of the same on the taxable property within its limits.

The decree of the court below will be therefore reversed. The defendant will be allowed the usual time to answer as upon our ruling of demurrer.

(The other justices concurred.)

MANUAL OF INSTRUCTION

FOR

MICHIGAN TEACHERS' INSTITUTES.

1886-7.

INTRODUCTORY.

It will be seen by comparing this manual with former ones that a number of topics have been omitted, others considerably enlarged and modified. The organization and work of the Teacher's Reading Circle is introduced as a new feature, and is earnestly recommended to institute conductors as a most important means of the teacher's growth and culture.

Special attention is called to the topic, "The Effects of Alcoholic Drinks, Narcotics, and Stimulants," required by recent act of the Legislature to be taught in the public schools of the State. In addition to the regular work done in the institute, one evening may properly be devoted to this subject as a means of interesting parents and citizens in the subject. No topic demands more earnest attention than this.

A word of caution may be given against attempting to discuss too many topics in one week's institute. Conductors are urged to ascertain as far as possible the wants of the teachers in the particular localities, and make instruction prominent in those branches in which there seems to be the greatest need.

The organization and management of district schools should be made, for a time at least, a prominent feature of institute instruction. How best to classify a district school, what branches should be made prominent, what limitations should be recommended, are questions which should receive very careful and earnest attention.

When institutes are held two weeks or more, it is hoped that a portion of the time, at least one exercise a day, shall be given to class work. The aim should be to make these exercises models of recitation, in which the best methods of testing, teaching and training shall be illustrated. Some work of this kind may be profitably done in a one week's institute.

Conductors are requested to report to this department the subjects presented, the amount of work done, and the special topics discussed in each subject. These reports will be sent to conductors of succeeding institutes to guide them in determining their work.

MANUAL OF INSTITUTE WORK.

I.

SUGGESTIONS TO INSTITUTE CONDUCTORS AND INSTRUCTORS.

1. The institute is to be regarded as a Normal School with a very short course of study. Its purpose is to do, in part, the work which the State Normal School has not the opportunity to do.

2. The purposes of the institute may be stated as follows: To revive the pupil's knowledge of subjects; to give some degree of professional knowledge; to create and foster both a scholarly and a professional spirit.

3. The period of instruction is so short that but little more can be done in subjects than review and revival. A few of the more important parts of arithmetic, grammar, geography, history, etc., should be selected and these should be presented so clearly as to leave a permanent impression.

4. Under professional instruction there should be included the best methods of organizing, governing, and instructing, and some discussion of principles. Under the last head it is recommended that the following topics be discussed: 1. The function of the public school in a republic; the elements of good citizenship; for which of these the school should be held chiefly responsible; how the patriotic spirit may be fostered. 2. What it is to teach; how teaching differs from telling; how a pupil's knowledge can be tested; what it is to think. 3. Show that studies may serve for use, for mental discipline, and for mental satisfaction. 4. Show how learning differs from memorizing, and how books are to be used in order to promote thinking.

5. By reason of the limitation of time, institute instruction should aim particularly at definiteness and clearness. There is danger of presenting too much matter, and of passing over the ground too lightly and too rapidly. A clear distinction should be made between the important and the unimportant.

6. It is recommended that pupils be required to record the salient points of the instruction in their note books, and that the last half hour in each session be devoted to a review of the topics presented. If there are two instructors, each may examine in his own subjects. In these reviews pupils may be allowed to select any topic which they may prefer to present, and the instructor may take occasion to give some extension to important topics. Pupils may be called up at random by means of the enrollment cards. Instructors may fairly test the quality of their work by what pupils reproduce in these reviews.

7. In an institute of two weeks, with three instructors, it is recommended that a modified form of class work be done, and that in the distribution into sections the institute be roughly graded. The pupils with no experience in teaching may form one section; those with a moderate amount of experience, the second; and the most experienced, the third. The instructors can adapt their lessons to their successive classes.

8. In general, penmanship and music should be presented by specialists; and as such teachers usually have methods of their own, these topics are omitted from this syllabus.

9. The whole spirit of the institute should tend towards creating and sustaining a desire for continuous self-improvment; and at least one hour should be devoted to explaining the purpose and plan of the reading circle. In conjunction with the county examiners, efforts should be made in the institute to form organizations wherever they have not already been made.

10. The following distribution of time is recommended for an institute of one week:

HOUR.	TIME.	SUBJECT.
9:00 a. m.	15	*Opening.*
9:15 a. m.	30	.....
9:45 a. m.	30	.....
10:15 a. m.	15	*Recess.*
10:30 a. m.	30	.....
11:00 a. m.	30	.....
11:30 a. m.	30	*Review.*
2:00 p. m.	15	*Opening.*
2:15 p. m.	30	.....
2:45 p. m.	30	.....
3:15 p. m.	15	*Recess.*
3:30 p. m.	30	.....
4:00 p. m.	30	.....
4:30 p. m.	30	*Review.*

The following distribution of time is suggested for a two weeks' institute:

FORENOON.

	ROOM 1.	ROOM 2.	ROOM 3.
First Hour	General Lecture.	General Lecture.	General Lecture.
Second Hour	Recitation.	Recitation.	Recitation.
Third Hour	Recitation.	Recitation.	Recitation.
Fourth Hour	Recitation.	Recitation.	Recitation.
Fifth Hour	General Review.	General Review.	General Review.

AFTERNOON.

	ROOM 1.	ROOM 2.	ROOM 3.
First Hour	General Lecture.	General Lecture.	General Lecture.
Second Hour	Recitation.	Recitation.	Recitation.
Third Hour	Recitation.	Recitation.	Recitation.
Fourth Hour	Recitation.	Recitation.	Rectation.
Fifth Hour	General Review.	General Review.	General Review.

REMARKS.

In rooms one, two and three let the work be carried on as class exercises, under the charge of specialists. The above program is merely suggestive and contemplates the employment of a conductor and three instructors for a two weeks' institute only; as a rule, however, the conductor can take charge of a class-room, after having delivered a lecture before the whole institute, and hear one, two, or three recitations, calling upon members of the institute to hear recitations occasionally, under his direction as critic teacher. In this manner the work may be carried on by a conductor and two instructors. In other institutes, again, the members may be arranged in two divisions, thus making it possible for the conductor and one instructor to accomplish the work. It will be seen that this plan embodies the leading features of the lecture system, the class exercise, and the training school.

II.

THE ORGANIZATION OF DISTRICT SCHOOLS.

I.—PREPARATORY.

1. Choice of a school. Young teachers should not select a difficult school at first.
2. Contracts should be made in writing, and conditions definitely stated. Both parties should have a copy.
3. Obtaining information respecting the condition of the school, the school-house, etc. Consult the former teacher, the board, and parents. Be sure that the school-room is neat, comfortable, and clean. Friendly visits to the families of the district cannot be too highly recommended.

II.—FIRST DAY.

1. Be early. This is all important.
2. Take the names of the pupils as they enter the room. Endeavor to make the first impressions pleasant. Learn what you can of each pupil's studies, advancement, etc.
3. Call to order exactly on time.
4. Have a definite plan of work for the day:
   a. What you will do;
   b. How you will do it and when you will do it.
5. Let the opening exercises be short.
6. Assign lessons promptly. Commence with last lesson of preceding term and with a short advance lesson.
7. Complete the enrollment. Take:
   a. Full name of pupil;
   b. Full name of parent or guardian;
   c. Age of pupil.
8. Hear lessons assigned according to temporary program.

III.—PERMANENT ORGANIZATION.

1. In the preparation of a daily program the following rules should be observed:
   a. There should be as few classes as possible;

b. The studies that require the greater mental effort should come in the early part of the day.

c. The recitations of the youngest pupils should be short and frequent.

2. District schools would be greatly improved by being graded. In a school having but one teacher there should be but four grades, and each pupil should have but four studies.

3. A careful study of the following tables will assist teachers in the preparation of a daily program and in the grading of their schools:

DAILY PROGRAM.

Time.		Recitations.		Study.			
Begin.	Length.	All Grades.		Grade I.	Grade II.	Grade III.	Grade IV.
A. M.	MIN.						
9:00	5	....	Opening.	.....	.....	.....	.....
9:05	10	1	First Reader.	Second Reader.	Arithmetic.	Arithmetic.	Arithmetic.
9:15	15	2	Second Reader.	First Reader.	Arithmetic.	Arithmetic.	Arithmetic.
9:30	20	3	Arithmetic.	Slate Writing.	.....	Arithmetic.	Arithmetic.
9:50	20	4	Arithmetic.	Numbers.	Arithmetic.	.....	Arithmetic.
10:10	20	5	Arithmetic.	Numbers.	Geography.	Geography.	.....
10:30	15		RECESS.				
10,45	10	6	Numbers.	.....	Geography.	Geography.	Geography.
10:55	15	7	Geography.	Copying.	.....	Geography.	.....
11:10	20	8	Geography.	Copying.	Language.	.....	History.
11:30	20	9	Geography or History.	Reading.	Arithmetic.	Arithmetic.	.....
11:50	10	10	First Reader.	Second Reader.	Arithmetic.	Arithmetic.	Reading or Civil Gov'n't.
P. M.							
1:00	20	1	Reading or Government.	Slate Work.	Language.	Reading.	.....
1:20	20	2	Reading.	Slate Work.	Language.	.....	Grammar.
1:40	10	3	First Reader.	Second Reader.	Reading.	Reading.	Language.
1:50	10	4	Second Reader.	First Reader.	Reading.	Language.	Grammar.
2:00	15	5	Reading.	Reading.	.....	Language.	Grammar.
2:15	15	6	Writing.	.....	.....	.....	.....
2:30	15		RECESS.				
2:45	20	7	Language or Grammar.	Spelling.	Language.	Language.	.....
3:05	15	8	Language.	Spelling.	.....	.....	Civil Government.
3:20	10	9	Spelling.	.....	Spelling.	Spelling.	.....
3:30	10	10	Spelling.	Slate Work.	.....	.....	Spelling.
3:40	10	11	Spelling.	Slate Work.	Copying.	Arithmetic.	.....
3:50	10	12	Oral Lessons.	.....	.....	.....	.....

The heavy faced type indicates recitations, the common type the times when classes should study particular subjects. Where recitations are indicated for two grades at the same time they will recite together. History and Civil Government should be taken up after Geography is completed, usually at the close of the seventh year.

TABULAR VIEW OF COURSE OF STUDY FOR DISTRICT SCHOOLS.

Grade.	Reading.	Spelling.	Writing.	Arithmetic.	Language.	Geography.
I.—Two years.	First and Second Readers.	Oral and Written; Words from Reading Lessons.	On Slates, the Words Learned.	Decimal Notation to 1,000; Roman Notation to 50; Multiplication Table to 6's; Four Fundamental Operations, largest Number being 1,000.	Telling and asking Sentences; Pictures—Talks about; Copying and making Sentences.	Oral Lessons on Globe; Home Geography, oral and sketched.
II.—Two years.	Third Reader.	Oral and Written; Words from Reading Lessons.	Copy books of some Series.	Decimal Notation to 1,000,000; Roman notation to 100; Multiplication Table complet d; Fundamental Operations, in dec. notation to millions.	Continue former Exercises; Common errors Corrected; Writing from Dictation; Composing Sentences containing given words.	Co. and State Map; First Book of Series begun; Oral Exercises with Globe; Map Sketching.
III.—Two Years.	Fourth Reader.	Oral and Written; Words from Reading Lessons and Spelling Book.	Copy Books of some Series.	Factoring Numbers; Common and Decimal Fractions; Compound Numbers—the tables in commonest use.	Imaginary Stories; Kinds of words and Sentences; Subject and Predicate; Letter Writing.	Use of Globe continued; First Book completed; Second Book of Series; Map Drawing.
IV.—Two Years.	Fifth Reader.	Written Mainly; Words from Reading Lessons and Spelling Book.	Copy Books of some series.	Compound Numbers completed; Business Forms; Ratio and Proportion; Perentage; Square and Cube Root.	Word Studies; Composition and Letter Writing; Text-book on Grammar.	Second Book completed; U. S. History and Civil Government.

GENERAL NOTE.—The course of study as here laid down contemplates the use of the following number of text books in the various subjects: *In reading, five books*, including the primer or first book; *In spelling, one book*; *in writing*, any common school series of copy books; *in arithmetic, two books*; *in geography, two books*; *in grammar, one book*; *in United States History, one book*. In addition, the pupil should have slate and slate pencil, paper and lead pencil, and, if possible, a school dictionary. Those who use copy books should also have pen and ink.

The teacher should have some manual of object teaching, elementary works on all subjects to be taught oraliy (hygiene, the effects of alcoholic drinks and stimulants, civil government, etc.), and other convenient books of reference.

The school-room should be provided with dictionary, globe, outline maps, sufficient black-boards, crayons, and pointers, and such other conveniences as may be possible.

III.

SCHOOL GOVERNMENT.*

I.—THE ENDS TO BE ATTAINED.

1. *Immediate*—(1.) To preserve organization and order. (2.) To teach needed practical lessons.

2. *Ultimate.*—(1.) To excite lasting love of order, system, symmetry, and beauty. (2.) To create the habit of obedience to all rightful authority. (3.) To make pupils self-governing. (4.) To teach the nature of law; its necessity in society, and the relation between rights and duties.

II.—BASIS.

Government rests ultimately upon authority, power or force. This may be:

1. *Moral.*—That is, power making itself felt without appeal to pains and penalties. It depends for its efficiency upon (1) the character of the teacher, (2) upon the nature of the pupils, and (3) upon the relation between the two.

2. *Physical.*—That is, power making itself felt, when necessary, by pains and penalties. The need of this will continue in schools and in society so long as human nature remains as it now is.

III.—METHODS OF ADMINISTRATION

Are reducible to two:

1. The method of restraining and coercing the desire of activity.
2. The methods of directing and guiding this desire.

IV.—THE PRACTICAL PROBLEM

In all governing: To secure the necessary order and unity of action in the whole body, and to allow the greatest possible individual freedom.

V.—PRACTICAL SUGGESTIONS.

1. Have the fewest possible rules.
2. Have only such rules as will commend themselves to fair-minded pupils.
3. Do not attach specific penalties to general rules.
4. Have no penalties which are unnecessarily irritating and offensive.
5. Govern as far as possible without appearing to govern.
6. Cultivate the honor and manhood of pupils by trusting them even though you are sometimes cheated.
7. Remember that a child cannot entirely "put away childish things."

*NOTE.—The governing of a school cannot be separated from the teaching. The organization, general management, discipline and government, are among the most effective agencies of instruction. They form character.

IV.

THE RECITATION.

1. It is in the recitation that the real power and worth of the teacher is exhibited, for it is here that he may come in closest contact with the mind and heart of the pupil.

2. The general purposes of the recitation may be stated as follows: To cause the pupil to restate, so far as possible, in his own language, the matter contained in the assigned lesson; to give additional clearness to the pupil's knowledge by means of illustration and explanation; to create an interest in the subject by supplying suitable motives to pursue it, and by engaging the pupil in the art of thinking.

3. These are some of the marks of a good recitation: Good order and active attention; a lively interest in the subject under discussion; an intelligent restatement of the matter contained in the lesson; a sharp appetite for knowledge; a disposition to *think*.

4. Some of the qualities needed by the teacher are the following: A good knowledge of the subject and a living interest in it; a graceful, kindly manner; enough of the nervous temperament to give quick discernment to eye and ear; the ability to ask questions which are clear, definite, pointed and suggestive; skill in stimulating pupils to self-activity.

5. Some of the necessary mechanical elements in the recitation are the following: A simple system of signals for calling and dismissing classes; a comely and uniform posture of pupils; calling pupils up without regard to numerical or alphabetic order; assigning lessons which are neither too long nor too short; a time-table well planned and faithfully followed.

V.

TEACHERS' READING CIRCLE.

The purposes of this organization are the following:

1. To supplement the work of the institute by assisting teachers in pursuing a systematic course of self instruction.

2. To recommend to teachers a graduated course of study, showing where to begin and how to proceed.

3. To secure to teachers a selection of good books at the lowest obtainable rates.

4. To secure to teachers a proper credit for this course of study on the books of the county examiners.

The following items embrace the essential features of this organization:

1. *Mode of Organizing a County Board.*—In counties where the reading circle has not yet been organized teachers who are interested in this work should request the secretary of the county board of examiners to forward to the secretary of the State Council the names of six teachers whom he deems qualified to constitute a county board. From this list of six candidates the State council will select four, who, with the secretary of the county board of examiners, will constitute the county board. Two of these members will hold office for two years and the other two for one year, subject to the provisions of section 4, in general regulations. As soon as possible this board will organize by the election of a president, a secretary and a treasurer. In

case the secretary of the county board of examiners neglects or refuses to apply for an organization, any ten teachers of the county may join in an application to the State Council, and may nominate candidates for the board.

2. *Membership.*—The payment of an annual fee of fifty cents entitles any teacher to all the privileges of the State Reading Circle.

3. *Course of Study.*—FIRST YEAR:

a. Professional: Page's *Theory and Practice of Teaching.*

b. History: Barnes's *General History* to p. 312.

c. Literature: Swinton's *Studies in English Literature,* with supplementary reading.

SECOND YEAR:

a. Professional: Putnam's *Outlines of Theory and Art of Teaching.*

b. History: Barnes's *General History,* completed.

c. Literature: Swinton's *Studies in English Literature,* completed.

THIRD YEAR:

a. Professional: Bain's *Education as a Science.*

b. Psychology: Sully's *Pyschology.*

c. History of Education: Compayre's *History of Pedagogy.*

Laurie's *Life of Comenius* is adopted as supplementary reading in any part of the course where there may be leisure for it.

4. *Text Books and Prices.*

Names of Books.	Retail Price.	Price to Circles.
Barnes' *General History*	$2 00	$1 40
Bain's *Education as a Science*	1 75	1 20
Compayre's *History of Pedagogy**	2 00	1 50
Sully's *Psychology,* Reinhart's Abridgement	1 50	1 00
Page's *Theory and Practice of Teaching*	1 25	90
Putnam's *Theory and Art of Teaching.*	.....	.....
Swinton's *Studies in English Literature*	1 50	1 20

* Postage prepaid.

These prices do not include postage or express charges.

5. *State Depository.*—All books needed by the State Reading Circle will be supplied from the State Depository in Lansing, in charge of Mr. Wesley Emery. Readers should give their orders for books to the secretary of the county board, who will obtain them in quantities from the State agent.

6. *Membership and Fees.*—It should be remembered that the payment of the annual fee (50 cents) is necessary to constitute membership in the State reading circle. None but actual members are entitled to the privilege of buying the authorized text books at the reduced rates, and no others will be commended to the county examiners for credits on account of work done in the circles.

Hereafter, memberships will be regulated according to the following rules:

a. All memberships will terminate on the 31st of December in each year.

b. When teachers become members of the circle after June 30 in any year, the fee will be 25 cents; but those memberships will terminate as in rule *a.*

c. The fee for renewal of memberships will in all cases be 50 cents.

7. *Certificates of Membership.*—The county board shall give to each person paying the required fee a certificate of membership (blank 7) which shall entitle the holder to the privilege of buying text books at reduced rates, and of receiving credits for work done.

8. Teachers who are pursuing this work should form groups for review and discussion. Some chapter should be assigned for review, and each member should be asked to present one of the topics contained in it.

VI.

SCHOOL LAW.*

PURPOSE.

To make teachers intelligent in respect to their own legal (1) duties, (2) responsibilities, and (3) rights. (The references are to paragraphs of the school laws of 1885.)

I.—DUTIES.

1. To make thorough preparation for their work. This duty is both legal and moral. Examinations are based upon this assumption.
2. To secure legal certificates before commencing to teach. (§§38, 40.)
3. To pay for such certificates an annual institute fee. (§155.)
4. To have written contracts with the proper officers before commencing to teach. (§40.)
5. To keep required records, and to make report to director. (§40.)
6. To teach four weeks of five days in each week for a month, unless the contracts provide otherwise. (§40.)
7. To use in school such text books only, and to teach such studies as the school board shall direct. (§42.)
8. In the management of a school to obey and enforce such rules and regulations as the school board may adopt. (§44.)
9. Not to act as agents for books, apparatus, furniture, etc. (§147.)

II.—RESPONSIBILITIES.†

1. The proper care of the school-house, furniture, apparatus, etc.
2. Proper care for the health and comfort of pupils by attention to the warming, ventilation, etc., of the school rooms.
3. Proper order and discipline in the school; proper methods of correction, and proper care in respect to the intercourse of pupils.
4. The best methods of teaching, illustrating and explaining branches of study.
5. Right habits, good manners, correct speech, and proper control of the temper.

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* NOTE.—No extended outlines of this topic are deemed necessary. Copies of the school laws are furnished to conductors of institutes, and other topics can be presented whenever circumstances make their presentation necessary.

† NOTE.—Teachers are liable to forfeit their certificates and contracts for doing or neglecting to do certain things. Such forfeiture is a legal penalty. They are, therefore, legally responsible, by common law or usage, for anything which may cause such forfeiture. Special provisions of statute law are not necessary in relation to such matters.

III.—RIGHTS.

1. To have a copy of the contract. (§40.)
2. To expect the school-house and appendages to be kept in good condition by the proper officer. (§48.)
3. To have the usual holidays. (Page 67.)
4. To close school to attend institutes without loss of wages. (§158.)
5. To wages while a school is closed by the board on account of contagious diseases. (Page 68.)
6. To inflict necessary and reasonable punishment. (Usage, necessity.)
7. To be free, while in school, from disturbance by any person. (§44.)
8. To expect from the school board prompt and efficient support in dealing with pupils guilty of "persistent disobedience." (§44.)

VII.

PRIMARY READING.

I.—PURPOSE.

The purpose of instruction in primary reading is to assist the child in making the easiest transition from spoken to written language.

II.—STATEMENT OF THE PROBLEM.

The problem of primary reading may be stated in these terms: (*1*) *To teach the child a small vocabulary of printed words; and* (*2*) *to give him power to name new words for himself.*

1. When the child enters school he has a vocabulary of four or five hundred spoken words. By means of these symbols he gains knowledge through the sense of hearing. The purpose of instruction in primary reading is to give the pupil a new set of symbols, the counterparts of the old, so that he may gain knowledge through the sense of sight.
2. Of the four or five hundred words in the child's spoken vocabulary, *one hundred* (say) are in very common use, and the first part of this problem consists in teaching the child, on simple authority, one hundred printed forms which are the mental equivalents of the spoken words in most common use The second part of the problem consists in drawing from this small printed vocabulary the elements of power that will enable the pupil to determine the names of new words for himself.

III.—TO TEACH THE SMALL VOCABULARY.

To the sense of sight words are things, and their names are to be taught by exciting an interest in the form (word), and then associating with this form its peculiar name.

1. The words selected should be those which are in most common use, such as *cat, hat, good, bad, runs, sees,* etc.; and whenever possible the pupil's interest should be excited in the thing whose symbol is to be learned.
2. These words, one, two or three at a lesson, should be printed on the board, or pointed out on the chart, and they should be considered learned

only when the child can recognize them *instantly* and with *unfailing accuracy.*

3. As the words are learned, they should be woven into expressive phrases and sentences.

4. Each new lesson should be preceded by a *hunting exercise,* i. e., the words previously learned should be presented collectively, and the pupil should identify any form pointed out by the teacher.

5. During this *word-learning* period the attention of the pupil, while in class, should be limited to two things: the learning of new words, and the fluent reading of short sentences.

6. The occupation of the pupil while at his seat should be the *matching of words.* He should have a box of words printed on bits of cardboard, and from this collection he should select words corresponding to certain words in his book, or to words printed on the board. He should then construct sentences, old and new.

IV.—THE ELEMENTS OF POWER.

In order to name new words for himself, the child must know three things: (1) The letters of the alphabet; (2) the elementary sounds of the language; (3) the association of letters and sound.

1. The easiest way to teach the letters is by printing words. By this act the word is separated into its parts (letters) and these parts are thus learned just as words are first learned. (III.) Printing is also valuable as a means of impressing words sharply upon the pupil's mind. In this stage of progress the characteristic occupation of the pupil, while at his seat, should be the formation of words out of letters printed on bits of card board.

2. The easiest way to teach the elementary sounds of the language is by the *slow pronunciation of words.* The teacher should pronounce a word, and the pupil should name its vocal elements; and at other times the teacher should name certain elements and then the pupil should combine them into a word, *e. g.*:

Teacher: *man;* pupil: *m–ă–n;* teacher, *r–ă–t;* pupil, *rat.*

3. The easiest way to teach the association of letter and sound is by *oral spelling.* For this purpose it is recommended that the process be as follows:

1. Naming the parts (letters) of the *printed* word *m–a–n.*
2. Naming the parts (sounds) of the spoken word *m–ă–n.*
3. Fusing the sounds into the spoken word, *man.*

VIII.

ADVANCED READING.

The purpose of instruction in primary reading is to furnish the pupil with an instrument for gaining knowledge and culture; the purpose of instruction in advanced reading is to teach the pupil how to use this instrument and to aid him in securing results which this new art places within his reach.

1. Some of the purposes of advanced reading may be stated as follows: 1. To teach the art of interpreting language, or of gaining knowledge from books. 2. To foster a love for knowledge and good books. 3. To furnish

the mind with food for thought and contemplation, and to create skill in thinking.

1. To interpret written language two things are necessary: 1. The words must be significant, or must yield the pupil some fit meaning. 2. The idea suggested by the words must be discerned in their proper relations and so constitute a clear thought. To test the pupil in these two particulars, require him to reproduce the thought of the sentence, paragraph, or verse, so far as possible, in his own language.

2. A love for knowledge and books may be created by discussing the subject matter of the paragraph or lesson, and by the interest which pupils will borrow from an intelligent and enthusiastic teacher.

3. To test the furnishing of the pupil's mind, there should be a resort to recitations, discussions, and written essays, and a stimulus to thinking may be found in questions, in tracing out allusions, historical, geographical, etc., and in estimating the truth, beauty and propriety of the thoughts expressed.

II. Reading proper, or the interpretation of written language, should precede elocution, or the vocal expression of thought. The thought should first be clearly comprehended, and then should be clearly and pleasantly expressed.

1. To make sure that the thought has been clearly apprehended, proceed as in I., 1.

2. The faculty of reading aloud (elocution) may be tested in this way: Do those who listen as readily catch the thought of the paragraph as though they were reading it? Is the effect of this reading aloud pleasing?

IX.

ELEMENTARY SOUNDS.

I.—TEACHING THE SOUNDS.

1. The sounds should be worked out from familiar words by *slow pronunciation.*

2. Or they may be given by the teacher, the pupils imitating.

3. The position of the vocal organs in making the sounds respectively should be noted as closely as possible.

4. There should be abundant drills upon all the sounds, by a variety of methods.

II.—REPRESENTATION.

1. Diacritical marks given as needed to indicate sounds learned.

2. Table of diacritical marks may be finally given—names and uses explained.

3. Drills. Teacher articulate sounds, pupils represent them by written characters.

III.—SUGGESTED EXERCISES.

1. *Sound Studies:*

   a. Word containing the sound given.

   b. Sound derived from the word.

   c. Sound given in concert and singly.

d. Diacritical mark, if any.
e. List of words containing the sound.
f. Sounds classified.

2. *Words Analyzed:*
   a. Pronounce the word.
   b. State the number of syllables.
   c. Spell by sound.
   d. Classify each sound and tell how it is represented.
      1. By what letter.
      2. By what diacritical mark.
      3. Usual or unusual.
3. Words and sentences dictated or copied and the letters marked.

IV.—TABLE OF ELEMENTARY SOUNDS.

Examples.	Vocals.	Examples.	Sub-Vocals.	Aspirates.	Examples.
	Group I.	beg	b	p	pet
mē	ē	dog	d	t	to
mĭss	ĭ	go	g	k	kit, cat
māte	ā	gem, jug	g—j	ch	chat
mĕt	ĕ	lame	l	l	clime
măt	ă	me	m		
	Group II.	no	n		
pōol	ōō—o u	ring, ink	ng—n		
pull	o͝o—u o	rat	r	r	prim
pōle	ō	vat	v	f	fat
pall	a	woe	w	wh	when
pŏll	ŏ	yet	y		
	Group III.	zest, as	z—s	—ç	sit, cell
ûrn	û	azure	zh	sh	shut
ŧis	ŧ	this		th	thin
ask	a			h	hat
ăh	ă	exist	x—g z	x—k s	tax
	Diphthongs				
ice	ĭ—ă > ē				—
our	—ă > o				
oil	—a > ė				
ŧse	ŧ—y + o				

NOTE ON THE TABLE.—The vocals are grouped on the basis of the position of the organs in producing them. In the first three diphthongs the mark > (meaning "glide towards") is used instead of + as expressing more accurately the relation of the two sounds.

X.

LANGUAGE LESSONS.

I.—OBJECTS.

1. The expression of thought with ease and correctness.
   a. Acquisition of words to represent ideas.
   b. Use of words in the sentence to express ideas.
   c. Correct pronunciation.
   d. Correct mechanical form.
2. To inculcate a pure literary taste.

II.—OBSERVATIONS.

1. Language is best learned through much practice.
2. The end of every exercise is the correct expression of some thought.
3. Therefore, correction and criticism should be subordinate; their necessity prevented by proper grading and supervision.

III.—METHODS.

First Step:—Learning to use the pencil.

Suggested exercises: 1. Preparatory—oral; conversations, correct use of idioms. 2. Copying words—names of objects, from black-board. 3. Copying sentences, from black-board or book. 4. Writing sentences containing a given word. 5. Dictation exercises. 6. Initial capital and closing point.

Second Step:—Expression of thought derived from objects or pictures.

Suggested Exercise: 1. Pictures—close observation, perhaps led by the teacher; then writing out in various forms or idioms what is seen in the picture. 2. Objects: Pupils have in hand an object (flower, leaf, mineral, toy, etc.,) observe, and write what they see. 3. Other things in or out of the school-room written about in a similar way. 4. Dictation exercises extended. 5. Punctuation work extended, with suitable sentence writing.

Third Step:—Descriptions and narrations.

Suggested Exercises: 1. Actions—things done by teacher or pupil described. 2. Things done by pupil (on way to school, on a holiday, etc.,) narrated. 3. Processes described in detail, as, how to wash the face, to make bread, to catch fish, to play ball, to shoe a horse. 4. Reports of happenings in and about the school. 5. Fuller descriptions of buildings, places, journeys, etc. 6. Letter writing. 7. Word analysis—suffixes and prefixes.

Fourth Step:—Reproductions.

Suggested Exercises: 1. Reproduction of stories, or selections, read or related by the teacher. 2. Abstracts, or answers to questions on the reading lesson. 3. Written work, from memory, on various school lessons. 4. Literary gems reproduced from memory. 5. The parts of the sentence—name and action words—perhaps others.

Fifth Step :—Origination.

Suggested Exercises. 1. Imaginary stories from pictures. 2. Stories from given conditions; as two persons in a boat, the events; four persons sitting in a room, conversation. 3. Stories from furnished outlines. 4. Word studies; figurative words, derivations, defining.

Sixth Step.—Formal composition.

Suggested Exercises: 1. Formal essays—gathering material—outline—elaboration. 2. Turning poetry into prose. 3. Expansion of a fable, ditty, proverb, etc., into a story. 4. Abstract of contents of a book read, or report of special parts of it.

XI.

TECHNICAL GRAMMAR.

I.—OBJECTS. (IN THE ORDER OF IMPORTANCE.)

1. Education, *i. e.*, the training of judgment, reason, etc.
2. Increased power of interpreting authors.
3. Improvement of one's speech through a knowledge of its laws.

The last consideration is too often allowed to over-top the others.

II.—METHODS.

1. The sentence being the unit of discourse, is naturally the point of departure in grammatical study.

The child is already familiar with the thing to be studied.

2. Parsing and analysis are essentially alike, *i. e.*, they are both exercises in the classification of the elements of the sentence.

3. The principle of classification here is similarity in use.

The child is already familiar with the classification of material objects. Illustrate with books, apples, hats, flowers, etc.

4. Begin with the parts of speech in their order, and practice on these until the pupil readily classifies the words of easy prose.

Beginners should be required to give the *use* of a word before its *name*, thereby keeping the principle of classification before the mind.

5. In like manner take up the sub-classification of each part of speech in turn, with thorough drill on the inflections.

Usage governing inflected forms should be faithfully learned and applied.

6. Classification of phrases and clauses. Practice contraction and expansion of these elements, thus showing more clearly their substantative, adjective and adverbial nature.

7. Infinitives, participial constructions, and some of the pronoun clauses are often difficult, and must receive careful treatment to make their nature and relation evident to ordinary pupils.

III.—OBSERVATIONS.

1. Grammar is not one of the primary studies. It cannot be profitably entered upon before the sixth grade.

2. Teachers sometimes make the mistake of trying to bring all usages

under a few simple rules. Many of the idioms, in which our language abounds, must be left for special advanced study.

3. Any parsing or analysis that is done mechanically or from memorized lists does violence to the reason and defeats the most important object of the study.

4. With the study of technical grammar should be coupled regular and systematic practice in composition.

XII.

MORALS AND MANNERS.

I.—FUNDAMENTAL IDEAS.

1. Morals relate to the things that ought or ought not to be done.

2. Moral culture is essential to the welfare of the state and to the prosperity of society.

3. The supreme duty of the schools is training in moral principles—genuine character.

II.—METHODS. (INDIRECT.)

1. Moral culture, as a process, consists in rendering, *a*, the moral feelings quick and strong, and, *b*, the moral judgment sound and exact.

2. Training in moral practices is superior to instruction in moral principles, because it establishes the habit of right doing.

3. A wisely managed school in its regular exercises and modes of discipline furnishes the best of training in the elements of good character, viz.: obedience, punctuality, cleanliness, good manners, rights of others, a trained will, self-control.

4. The conditions of success here are:

   a. The moral character of the teacher: sincere, prudent, courteous, even-tempered, a warm heart, genial nature, earnest manner, exemplary habits.

   b. The teacher's knowledge of child-nature, enabling him to supply the right motives, and to bring to bear the right influences.

III.—METHODS. (DIRECT.)*

1. Topics to be treated at stated times, or as occasion offers: Honesty, kindness, truthfulness, unselfishness, reverence, purity in thought, word and deed, obedience to parents, teachers, and the laws.

2. Correction of evil and bad habits: Idleness, profanity, lying, stealing, obscenity, use of tobacco and intoxicating drinks.

3. Means to be used: Current incidents, anecdotes, stories, noble lives, heroic deeds, sentiments in the school lessons, didactic talks.

4. Attack prevailing evils by a kind and thorough general talk; special ones, singly and in private.

* NOTE.—It would be well to illustrate the method of treating one or more of the topics in 1 and 2.

XIII.

GEOGRAPHY.

II.—AIMS OF GEOGRAPHICAL STUDY.

1. Since the earth is man's dwelling place it is desirable that he should be acquainted with its characteristic features, hence one aim of geographical study is to give a knowledge of the contour, relief, hydrography, climate, etc., of the earth.

2. Since the inhabitants of different parts of the earth are affected by the character of their land, a second aim of geographical study is to know the relations between the physical surroundings of a people and its progress in civilization, commerce, etc.

3. Since man in his turn modifies the physical character of the earth, a third aim of geographical study is to learn the influence of these modifications (draining lakes, dikes, etc.) upon the physical structure of the country.

4. A fourth aim of geographical study is the acquisition of a sufficient amount of knowledge to readily understand geographical allusions in current literature.

5. The study of geographical facts and relations employs the powers of observation, memory, comparison, imagination, reasoning, delineation, etc., hence a further aim of geographical study is the systematic cultivation of these powers.

II.—METHODS OF TEACHING.

1. A correct method of teaching geography should be based upon a study of the nature of geography, the intellectual status of the pupil and the means of acquiring geographical knowledge.

2. Karl Ritter defines geography as "The science of our planet, its parts, peculiarities, and special relations to nature and to man. * * * * The subject matter of geography is the earth as an organic whole, where parts stand in necessary connection and hold among one another a relation of cause and effect."

3. The intellectual status of the pupil may be taken as fairly indicated by the customary grading into primary, grammar, and high school. We thus have three grades of geographical work. In accordance with the account given above of the nature of geography the *subject matter* of each grade will be the same—the *method of teaching* and amount of detail will alone differ in each.

4. The means of acquiring geographical knowledge are direct observation, reading accounts of the observations of others, study of representations of geographical objects. As all classes of geographical facts admit of graphical presentation, the *map* is the chief means of acquiring geographical knowledge. Hence acquiring the power to read maps forms a leading feature in the correct method of teaching geography.

III.—PRIMARY COURSE.

1. The object of this course is to give power to *read maps*. This power

can be acquired only by (1) observing geographical objects, (2) describing the result of this observation, and (3) by representing (*i. e.*, mapping) the object observed and described.

2. This work can be done only in the child's neighborhood. Hence the first geographical study is home geography.

3. In accordance with the statements above there are three steps in the study of a geographical object—observation, description, representation. These constitute the order of teaching.

4. The primary course being preparatory to the grammar and high school courses, it must include such topics as will lay a foundation for them. These will be: (*a*) Apparent motions of the sun, change of seasons, etc. (*b*) Form, relief, hydrography and other features of physical structure. (*c*) Climate, organic life, etc. (*d*) Man, political divisions, industries, etc. All these must be studied as presented in the child's neighborhood, as a basis for future work. (Refer to II., 3, closing sentence.)

3. The following is an order of lessons founded upon the foregoing considerations:

1. Horizon. (*Observe* position and form; *describe* what is observed; *represent* by drawing a circle.)
2. Points of compass as positions in the horizon from school-house as center.
3. Exercises in *observing*, *describing*, and *representing* position, direction and distance of objects lying between school-house and horizon.
4. Relative character of position, direction, etc., shown by changing center of horizon.
5. Surface.* (*a*) Land features. (*b*) Water features.
6. Climate.
7. Vegetation.
8. Animals.
9. Inhabitants.
10. Political divisions.
11. Villages, towns, cities; means of communication.
12. Commercial relations.
13. Parallel with the above course of lessons should run a series in observing the apparent motions of the sun, moon, etc.; the change of seasons and other similar phenomena. Of course these lessons must be given when suitable opportunities of observing the phenomena occur.

6. The aim of the primary course is to teach *map-reading*. This is accomplished when the neighborhood has been observed, described and represented. Hence, the pupil should pass from the study of the home to the study of the earth as represented by a globe. The order of lessons would be—

1. The globe represents the earth as to shape.
2. Show position of the home on the globe.
3. Locate and name the continents and the oceans from the home as centre.
4. Study North America, United States, Michigan from globe and wall map. Very little detail. Order of lessons same as in study of home.

*NOTE.—In teaching the representation of the surface of the vicinity, use the manner adopted in the maps the pupil will hereafter study.

IV.—GRAMMAR SCHOOL AND HIGH SCHOOL COURSES.

1. Work in these grades will, to a certain extent, be affected by the text-book used.
2. Precede both courses by advanced courses in home geography.
3. The wall map should be the centre of all study in these grades. Pupils read from the wall map the lesson of the following day to be reviewed before recitation on the hand map in their geographies. High school pupils should write down the results of their map reading.
4. The lessons when *recited* should also be *drawn* on slate or blackboard. Recitation (description) and map drawing (representation) should go hand in hand, as a result of map reading (observation). Whatever is recited should be drawn; whatever is drawn should be recited. Map copying is useless.
5. Suggested order of topics: Position, boundaries coast line (bays, capes, etc.,) form, peninsulas, islands, areas, length of coast line, relief, hydrography, climate, vegetation, animals, man, political divisions and capitals, relations to commerce and civilization.

XIV.

UNITED STATES HISTORY.

I.—OBJECTS TO BE OBTAINED.

1. Creation in pupils of a taste for the reading and study of history.
2. Information on the part of pupils as to books to be read, and as to methods of reading and study.
3. Knowledge:
   a. Which shall serve as a basis for future reading and study.
   b. Which shall render reading intelligible by enabling the pupil to understand historical references.

II.—GENERAL PLAN OF TEACHING.

1. Select some topic for study.
2. Find out through the pupils what text-books and other works on U. S. history are in the neighborhood, and can be made available.
3. Read from the different books and converse with the class on the topic.
4. Teacher and pupils read in class, stories, anecdotes, and biographical sketches from other books.
5. Stories and anecdotes bearing on the topic may be given orally by members of the class, but in all such cases "authorities" should be required of the pupils.
6. Reproduction by pupils, both orally and in writing, of the substance of what has been read or related.
7. Constant use of maps to fix locations. It is exceedingly desirable to keep before the class an outline map of North America, including the West Indies.
8. Reference to books of history and biography for subsequent reading.
9. Directions and suggestions as to future reading and study.

III.—TOPICS FOR STUDY.

1. Aborigines; discoveries; explorations; settlements and colonies; Revolutionary war; United States civil and political history; slavery; the war of Secession; growth and development; wars.

XV.

ARITHMETIC.

ILLUSTRATIVE TOPICS.

1. Notation and numeration:
   a. Primary methods;
   b. Advanced methods.
2. Fundamental processes:
   a. Primary, as applied to integers;
   b. Advanced decimals—multiplication and division.
3. Fractions:
   a. Primary methods;
   b. Advanced methods.
4. Applied work:
   a. Denominate quantities;
   b. Percentage, proportion.*

I.—GENERAL PRINCIPLES.

1. To present and develop any subject in arithmetic to a class of pupils,
   a. Find out:
      1. What they know of arithmetic in general;
      2. What is their stock of knowledge preparatory to a study of the subject in hand.
   b. Have a clear idea of:
      1. The subject to be taught;
      2. The natural divisions of the subject;
      3. Their order and relation;
      4. How much can be mastered by the class.
   c. Then in each division of the subject:
      1. *Teach* the process;
      2. *Test* the pupil's ability to follow and understand the process;
      3. *Train* the pupils to correctness and rapidity of work.
   d. Show the connections and dependencies of the several parts of the subject as to each other.

II.—PRIMARY NUMBERS.

1. Development and expansion of the idea of number;
   a. Counting to 100 with and without objects;
   b. Counting by 2's, 3's, etc.
2. Writing and reading numbers to 10, 100, 1,000.
3. Development of ground rules:

*NOTE.—The above topics will suggest to experienced instructors a sufficient variety of exercises in the principles and operations of arithmetic. To those who desire more detailed work, reference is made to the following outline:

a. Simple additions, 2+2=4, 2+3=5, etc.;
b. Simple additions and multiplications, 2+2=4, two 2's=4, 2x2=4, etc.;
c. Simple additions and subtractions, 2+2=4, 4—2=2, etc;
d. Simple subtractions and divisions, 4—2—2=0, 4 contains 2 two times, 4÷2=2, ½ of 4=2.;
e. Simple multiplications and divisions, 3x4=12, 12÷3=4, etc.;
f. Simple exercises combining the four rules.*

III.—COMMON FRACTIONS.

1. Consideration of denominator and numerator:
   a. Office of each;
   b. Their relations;
   c. Effect of operations upon either,—both.
2. Reductions—cases.
3. Addition and subtraction.
4. Model exercises—topic, *Reduction*, unless otherwise requested by the institute.†

IV.—DECIMAL FRACTIONS.

1. Relation to integers.
2. Relation to common fractions:
   a. How derived from;
   b. How changed to.
3. Notation:
   a. Differs from integers;
   b. Explain.
4. Numeration.
5. Addition and subtraction.
6. Multiplication—deduce rule for pointing.
7. Division—deduce rule for pointing.

V.—SLATE AND BOARD WORK FOR ADVANCED PRIMARY.

1. Rapid reading of numbers carried to *nine places*.
2. Writing numbers from dictation, beginning with the smaller ones and increasing gradually to those of *nine places*.
3. Work designed to secure facility in the four ground rules.
4. Combinations of the four rules.

VI.—COMMON FRACTIONS.

1. Multiplication—deduce the rule.
2. Division—deduce the rule.
3. Model exercise—topic, *Division of Fractions*, unless otherwise requested by the institute.

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*NOTE.—In accomplishing the above, use objects when necessary or desirable.
†NOTE.—It is suggested that on the day previous the instructor ask the members to indicate through the question-box their choice of some topic in fractions.

VII.—PERCENTAGE.

Model exercise—topic to be designated by the institute.

VIII.—SUGGESTIONS.

1. Time to be given to the subject:
   a. By primary classes;
   b. By advanced classes;
   c. For oral or mental exercises;
   d. For written exercises.
2. In slate and blackboard work require:
   a. Correctness;
   b. Rapidity;
   c. Neatness.
3. The rule should be:
   a. Elicited from the pupil as an expression of his understanding of the operation.
   b. Then revised by comparison with the rule in the text-book.
4. The explanation should be a demonstration of the correctness of the rule, connecting the operation with the principles upon which it depends—not a mere description.
5. Rate of advancement of pupils.
6. Constant attention to rapid drill work.
7. Reviews should be frequent.
8. Examinations should be honest and thorough.

XVI.

CIVIL GOVERNMENT.

I.—GOVERNMENTS.

1. Definition and object.
2. Kinds:
   a. Patriarchal;
   b. Theocratic;
   c. Monarchial;
   d. Aristocratic;
   e. Democratic;
   f. Republican.
3. Political maxims.

II.—GOVERNMENT OF THE UNITED STATES.

Periods:
   a. Colonial;
   b. Under Articles of Confederation—insufficiency of;
   c. Under Constitution—origin and preamble.

2. Branches:
   a. Legislative—law making, congress:
      1. Senate, eligibility, number of members.
      2. House of Representatives—eligibility, number of members.
   b. Executive—law enforcing:
      1. Election of president and vice president.
      2. Powers and duties;
      3. Cabinet—how constituted, duties.
   c. Judiciary—law interpreting;
      1. Courts—supreme, circuit, district;
      2. Judges.
3. Special constitutional provisions.
   a. Prohibitions on U. S. *habeas corpus, ex post facto*, etc.
   b. Personal rights.

III.—STATE GOVERNMENTS AS REPRESENTED BY MICHIGAN.

1. Relation to general government:
   a. Rights of States;
   b. State prohibitions.
2. Branches of State government.
   a. Legislative—branches, powers, number members, eligibility, term;
   b. Executive—State officers, powers and duties, term, eligibility.
   c. Judiciary.
      1. Justice courts—jurisdiction, functions;
      2. Probate courts—jurisdiction, functions;
      3. Circuit courts—jurisdiction, officers;
      4. Supreme court—how constituted, where held.
3. County government.
4. Township government.
5. Municipal government.

XVII.

SPELLING.

I.—RESULTS SOUGHT.

1. Knowledge of the proper form and use of words.
2. Power of close observation and correct habit of study.
3. Power of unconscious, automatic spelling.

II.—MATERIAL.

1. The child's vocabulary;
2. Words in the reading book;
3. Words in the spelling book;
4. Words in other text-books;
5. Misspelled words from compositions and other written exercises;
6. The dictionary;
   a. For correct spelling;
   b. For correct pronunciation.

III.—ORAL SPELLING.

1. Pupils should be drilled in vocalization :
   a. Until they can readily distinguish the various sounds of the different letters and their combinations;
   b. Until they are able to spell each word by sound and by letter, to name the silent letters, and to explain the use of substitutes.

IV.—WRITTEN SPELLING.

1. Should be introduced as early in the course as possible;
2. Should be employed with special reference to training the eye to know words by their forms;
3. Diacritical marks should be thoroughly mastered;
4. All written work should be done in the best and most careful manner.

V.—WORK IN ADVANCED CLASSES.

1. Teach a few principal rules, inductively and thoroughly.
2. Teach formation,—Word analysis:
   a. Of compounds,—permanent and temporary;
   b. Of derivatives,—roots, prefixes, suffixes.
3. Teach use of synonyms and homonyms.

VI.—SUGGESTIONS.

1. Spelling should cultivate perception, attention, memory: therefore pronounce a word fairly and usually but once for the pupils when in class.
2. Have pupils use everything necessary to the correct printing of a word,—capitals, hyphen, abbreviation mark, apostrophe.
3. Give special attention to words in most familiar use, teaching meaning with form and having pupils define and use in sentences.
4. Since the practical benefit of knowing how to spell is limited mainly to what we write, have pupils study spelling lessons by copying.
5. Create a lively interest in spelling by means of head marks, choosing sides, spelling matches, excusing from school by test spelling, examiners, logomachy, and other spelling games.
6. Have it understood that learning the spelling is an essential part of each lesson in all the text-books used.
7. Review frequently, and sometimes without previous notice. Omit all words of infrequent use.
8. With the pupil's progress the attention given oral spelling should diminish, while that given written spelling should increase.

XVIII.

PHYSIOLOGY AND THE PHYSIOLOGICAL EFFECTS OF ALCOHOL AND NARCOTICS.

I.—INTRODUCTORY.

1. Reason for calling the attention of teachers to the subject:
   a. Value of health and physical development;
   b. Serious results of ignorance of hygienic laws;
   c. The teacher's responsibility in the matter of his pupil's health.

2. Divisions of the subject:
   a. Anatomy;
   b. Physiology;
   c. Hygiene—with a definition of each.

II.—METHOD OF TEACHING.*

1. Before commencing school:
   a. Thoroughly inspect school-house, premises, out-buildings;
   b. Insist on repairs where needed;
   c. Secure cleanliness and prospective comfort before opening school;
   d. Maintain these by vigilant personal attention.
2. After commencing school (with reliable text-books as guides):
   a. Bones:
      1. Head and face, calling attention to their structure, in manner of joining, etc.
      2. Shoulders, arms and hands;
      3. The trunk, including spinal column, ribs, breast and hip bones;
      4. The legs and feet;
      5. Position of body;
      6. Effect of tobacco on bones, especially of the young.
   b. The muscles, voluntary and involuntary:
      1. Their use;
      2. Hygiene of the muscles; *e. g.*, need of good food, exercise, rest, change of position, etc.
      3. Effect of alcoholic drinks on muscles.
   c. Food,—divided into three classes:
      1. Mineral, as lime, salt, phosphorus;
      2. Tissue-making, as meat, eggs, grains;
      3. Heat-making, as butter, fats, sugar, etc.
      4. Alcohol as food—not useful.
      5. Effect of alcohol on tissues.
   d. Digestion:
      1. Teeth and salivary glands;
      2. Stomach and intestines;
      3. Proper care of these organs;
      4. Effects of alcohol upon them;
      5. Effect of tobacco upon them.
   e. Respiration:
      1. Nostrils, bronchial tubes, lungs, diaphragm; their structure;
      2. Why we breathe; what we exhale;
      3. Importance of good ventilation;
      4. Effects of tight clothing, stooping posture, etc.
      5. Effect of alcohol on the lungs;
      6. Effect of tobacco smoke on throat and lungs;
      7. Proper care of throat and lungs.
   f. Circulation:
      1. Anatomy, physiology and hygiene of the heart, arteries and capillaries;
      2. Action of alcohol on the circulatory organs and the blood;
      3. Action of tobacco on the heart.

* NOTE.—Make the study eminently *practical*.

g. The skin:
1. Its structure;
2. Absorbent powers;
3. Need of frequent bathing;
4. Caution against wet clothing, strong draughts, chills, etc.

h. Animal heat, how produced and maintained:
1. Alcohol as a protection against extremes of heat and cold.

i. The nervous system:
1. The brain and its divisions;
2. The spinal cord; its connections, situation and means of protection;
3. Proper care of these organs;
4. Effect of alcohol on the brain and nerves;
5. Effect of tobacco, tea, coffee, opium, etc., on brain and nerves.

j. Duties of teachers towards pupils in case of special emergencies:
1. As chills and fever;
2. Sudden changes of weather;
3. Wet feet and clothing;
4. Personal physical disabilities, as defective vision, speech, etc.

NOTE TO THE INSTRUCTOR.—Alcohol, tobacco, and opium are all narcotics. The objection to them, from a physiological point of view, is that they are active poisons. Very grave objections can be urged against them all because of their effect on the intellect and character.

TRANSACTIONS

OF THE

MICHIGAN STATE TEACHERS' ASSOCIATION

AT THE

THIRTY-SIXTH ANNUAL MEETING

HELD AT

LANSING, DEC. 28, 29 AND 30, 1886.

STATE TEACHERS' ASSOCIATION.

Officers for 1886.

President.

DAVID HOWELL ..... Lansing.

Vice Presidents.

E. C. THOMPSON ..... Albion.

J. G. PLOWMAN ..... White Pigeon.

Secretary.

GEORGE BARNES ..... Howell.

Treasurer.

A. C. BROWER ..... Plymouth.

Executive Committee.

1883-6.

J. W. EWING ..... Ionia.

W. H. PAYNE ..... Ann Arbor.

A. E. HAYNES ..... Hillsdale.

1884-7.

C. F. R. BELLOWS ..... Ypsilanti.

LUCY A. CHITTENDEN ..... Ann Arbor.

HAMILTON KING ..... Olivet.

1885-8.

J. M. B. SILL ..... Ypsilanti.

S. G. BURKHEAD ..... Saginaw.

ELLA DEAN ..... Grand Rapids.

Officers for 1887.

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Vice Presidents.

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Treasurer.

E. L. BRIGGS ..... Grand Haven.

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1885-8

J. M. B. SILL ..... Ypsilanti.

S. G. BURKHEAD ..... Saginaw.

ELLA DEAN ..... Grand Rapids.

1886-9.

L. MCLOUTH ..... Lansing.

H. N. FRENCH ..... Kalamazoo.

L. R. HALSEY ..... Battle Creek.

MICHIGAN STATE TEACHERS' ASSOCIATION.

THE TRANSACTIONS OF THE THIRTY-SIXTH ANNUAL MEETING.

Lansing, Tuesday, December 28, 1886.

EVENING SESSION.

The Association was called to order at 7:30 by the President.

The exercises of the evening began with a quartet, "The Sweetest of Flowers," rendered by Mrs. Flora A. Rarrick, Miss Ella Baker, Mr. G. W. Bement and L. A. Baker.

Miss Emily B. Barnard, pianist.

Devotional exercises were conducted by Rev. Mr. Beal, of Lansing.

A ladies' quartette, entitled "The Winter Song," was then finely rendered by Miss Kate Sickles, Miss Nora Towne, Miss Ella Baker, and Mrs. F. A. Rarrick.

The teachers were welcomed in a few well chosen words by Hon. Wm. Donovan, President Board of Education, Lansing Public Schools.

An appropriate response, on behalf of the Association, was given by Prof. A. E. Haynes.

The annual address of the President was then delivered by Supt. D. Howell, of Lansing, on "Character the Leading Object of Education."

The following committee on National Association Exhibit was named by the President:

Hon. Joseph Estabrook, Supt. Pub. Inst.; Supt. L. R. Halsey, Battle Creek; Supt. J. G. Plowman, White Pigeon; Prof. J. M. B. Sill, Ypsilanti.

The President declared the Association adjourned.

REPRESENTATIVE HALL,
Lansing, December 29, 1886.

WEDNESDAY MORNING SESSION.

The Association was called to order by the President at 9.00 a. m.
Quartette: "O Come Let Us Sing."
Devotional exercises were conducted by the Rev. Mr. Beattie, of Lansing.
Music: "Jubilate Deo."
The following telegram was then read to the Association:

COLORADO SPRINGS, COL.,
December 28, 1886.

D. HOWELL, *Pres. State Teachers' Association:*

Colorado teachers here in session wish you a Merry Christmas and a Happy New Year.
H. F. WAGNER, *President.*

Upon instruction by the Association, the Secretary sent the following response:

Lansing, Mich., December 29, 1886.

H. F. WAGNER, *Pres. Col. Teachers' Association,*
Colorado Springs, Col.:

The Michigan State Teachers' Association return greetings. Success to you. A Happy New Year and a Glorious 4th of July.
GEO. BARNES, *Secretary.*

"Proper Limitations and Proper Relations of Subjects taught in Ungraded Schools," was presented by Supt. S. G. Burkhead, of Saginaw City.

The subject was discussed by Prof. A. E. Haynes, Prof. Barr, Mr. Chas. C. Bryant, Mr. Legg, Mr. T. S. Clark, Mr. Sinclair, Mr. DeCamp, Mr. Kent, Mr. Cornell, and Mr. Hoisington.

After a short recess, a paper on the following subject was read by Mary E. Tilton, of Lansing: "The Want, the Worth, and the Cultivation of a Taste for Good Literature."

The discussion of the subject was led by Superintendent E. C. Thompson, of Albion, followed by Messrs. Haynes, Fiske, Ginn, Curtiss, and Barr.

Professor Dickey arose and said: Mr. President, I protest against the circulation of the sheet (New York Weekly) that I hold in my hand.

The President ordered the protest entered on the minutes of the Association.

The following committees were appointed by the President.

Committee on Resolutions.—Superintendent Chas. W. Pickell, Superintendent E. A. Wilson, Superintendent E. P. Church, Superintendent Wesley Sears, Professor Austin George.

Committee on Nominations.—Professor E. A. McEwan, Superintendent C. N. Kendall, Superintendent H. N. French, Superintendent C. L. Bemis, Professor E. A. Strong.

WEDNESDAY AFTERNOON SESSION.

Association called to order by the President at 2 P. M.

A telegram from the Illinois State Teachers' Association was read as follows:

Springfield, Ill., December 29, 1886.

D. HOWELL, *Pres. Mich. State Teachers' Asso.:*

The Illinois State Teachers' Association send greetings, and will cordially welcome the Michigan teachers at the National Educational Association.

CHAS. J. PARKER, *President.*

REPLY.

Lansing, Mich., December 29, 1886.

CHAS. J. PARKER, *Pres. Ill. State Teachers' Asso., Springfield, Ill.:*

The Michigan State Teachers' Association return greetings, and will meet you at National Educational Association.

GEO. BARNES, *Secretary.*

A letter relating to financial aid for Mr. Jocelyn, of Shiawassee county, in defending himself for manslaughter, was read and referred to the committee on resolutions.

A paper entitled "An Inquiry About Some Pedagogical Principles" was read by Prof. D. Putnam, of Ypsilanti.

The following gentlemen took part in the discussion: Prof. A. George, Pres. L. R. Fiske, Prof. A. E. Haynes, Supt. W. C. Ginn, Supt. J. G. Plowman, Supt. Demerest, and Mr. Cornell.

Paper, "Kindergarten Work in Primary Schools," was read by Nina C. Vandewalker, of Calumet.

The discussion of the paper was opened by Supt. J. W. Ewing, followed by Messrs. Church, Briggs, Grawn, Sears, Haynes, Pickell, George, Sinclair, and French.

Mr. Hall made a statement in regard to the Bay View Summer school.

Mr. H. R. Pattengill stated that "the Moderator would publish the proceedings of the Association within the memory of men now living, and that subscribers to the Moderator are always welcome."

The following telegram from the Indiana State Teachers' Association was received and read:

Indianapolis, Ind., December 29, 1886.

President Michigan State Teachers' Association:

The Indiana State Teachers' Association, in thirty-third annual session, send greetings.

CYRUS W. HODGIN.

REPLY.

Lansing, Mich., December 29, 1886.

Cyrus W. Hodgin, President Indiana State Teachers' Association, Indianapolis, Ind.:

The Michigan State Teachers' Association return greetings. Meet us at National Educational Association.

GEO. BARNES, *Secretary.*

The attendance of the Association during the day was about four hundred and fifty.

WEDNESDAY EVENING SESSION.

Meeting called to order by the President at 7:30 o'clock.

Music: "What from Vengeance yet Restrains Me."

Music—Ladies' quartette: "The Rustic Dance." (Encored.)

The address of the evening was delivered by Hon. Theo. Nelson, Superintendent of Public Instruction.

Subject: "The Undergraduate Youth of Our Time."
Music: "The Brook by the Hill."
The Association was adjourned by the President.

THURSDAY MORNING SESSION.

REPRESENTATIVE HALL,
Thursday, December 30, 1886.

Meeting called to order by the President at 9 o'clock.
Music: "Guide me, O Thou Great Jehovah."
Devotional exercises were conducted by Supt. E. P. Church, of Greenville.
Music: trio, "Praise ye the Lord."
The report of the committee on National Association Exhibit was read by Prof. J. M. B. Sill.

The committee recommends:
1. That the schools of Michigan begin immediately to prepare for the National Association, which is to convene in Chicago July 7, 1887, an exhibit.
2. That we nominate as committee to prosecute this subject, and to secure the necessary appropriation from the Legislature, D. Howell, H. R. Pattengill, and Supt.-elect Estabrook.

J. M. B. SILL,
L. R. HALSEY,
J. G. PLOWMAN,
Committee.

The following resolution was read and adopted by the association:

To the Honorable Legislature of Michigan:

WHEREAS, It has been enacted by our State Legislature that instruction be given in all our public schools on the nature and effect of alcoholic stimulants and narcotics upon body and mind; and

WHEREAS, This legislation has met our hearty and unanimous approval: be it therefore

Resolved, That we, the teachers of Michigan, in convention assembled, do hereby express our heartfelt and grateful appreciation of the wisdom and patriotism of this act of the Legislature, and recognizing the logical connection between the instruction required to be given upon the evil effects of the *use* of alcoholic drinks as a beverage, and the absolute and entire legal prohibition of the manufacture and sale thereof, we most earnestly petition your honorable body to submit to the people for their decision a constitutional amendment forever prohibiting the manufacture and sale of alcoholic liquors as a beverage.

Lansing, December 29, 1886.

Supt. J. W. Ewing moved that the Secretary of this Association prepare a circular on the National Association Exhibit and mail the same to members.
The motion was carried.
A paper entitled "Education and the Labor Problem" was presented by L. R. Fiske, President of Albion College.
The discussion was opened by Prof. H. C. Adams, of the University, followed by Messrs. Davis, Graves, Cornell, Ewing, French, and Clark.

RECESS OF TEN MINUTES.

Paper, "How Can the County Institute be Made More Profitable?" by Prof. Hamilton King, of Olivet College.

The discussion was opened by Supt. W. S. Perry, of Ann Arbor.

The following gentlemen also made some remarks on the question: Clark, Rork, Cornell, Bryant, Cox, H. R. Gass, Smith, and Fitch.

The Association adjourned for dinner.

THURSDAY AFTERNOON SESSION.

Association called to order by the President at 2 o'clock.

A communication was read from Prof. J. Estabrook, Supt. elect of Public Inst., expressing his regret and disappointment at being detained by illness from meeting with the Association.

A paper, "The Reading Circle," was read by Prin. L. C. Hull, of Detroit.

A report of the State Reading Circle Council was given by D. Howell.

The discussion of Mr. Hull's paper was carried on by Messrs. Legg, French, Haynes, and H. R. Pattengill.

The next hour was taken up by delegates from the various county teachers' associations on the subject of the condition and needs of the public schools.

A report of committee from delegates from county associations:

1. We are in favor of county supervision.
2. We think that some measure ought to be taken to secure a more general attendance of the common school teachers at our State Teachers' Association.
3. There should be a more general attendance at our county institutes.
4. That our district schools ought to be better provided with maps, charts, globes, clocks, bells and simple apparatus in general.
5. That our truant laws ought to be so changed as to make them effective.
6. That provision should be made for the grading of district schools.

The following delegates spoke upon the resolutions:

Superintendent McCall, of Gratiot county; Prof. A. E. Haynes, of Hillsdale county; Mr. A. R. Hardy, of Ingham county; Superintendent J. A. Sinclair, of Wayne county; Superintendent Geo. Barnes, of Livingston county; Superintendent Slauson, of Houghton county; Superintendent J. G. Plowman, of St. Joseph county; Superintendent Wesley Sears, of Genesee county; Superintendent McKibben, of Oceana county.

Delegates from other counties were present, as follows:

W. C. Ginn, of Hillsdale county; C. T. Grawn, Grand Traverse county; E. T. Curtiss, Houghton county; James H. Kave, Mason county; E. P. Church, Montcalm county; Mr. Cornell, Clare county; E. M. Fisher, St. Clair county.

The delegates seemed to be unanimous in favor of a county system of supervision.

The resolutions were adopted by a unanimous vote of the Association.

REPORT OF THE COMMITTEE ON RESOLUTIONS.

Committee on resolutions reported as follows:

1. *Resolved*, That we as an Association fully appreciate the efforts made by the President and the other officers to furnish a practical and instructive program for this meeting, and congratulate them upon their success.
2. *Resolved*, That we extend a vote of thanks to the Board of Control of the Capitol, for the free use of the building and the prompt attention to our wants.
3. *Resolved*, That we tender our sincere thanks to those who have furnished such excellent music during the sessions.
4. *Resolved*, That as Superintendent Nelson closes his term of office we express our

hearty recognition of his earnest efforts in the cause of education, and extend to him our best wishes for the future.

5. *Resolved*, That we extend our thanks to the railroads of the State for their courtesy in giving such unusually reduced rates over their lines.

6. In view of the fact that the law requiring instruction in the effects of alcoholic stimulants and narcotics is not properly enforced, *Resolved*, That this Association request the Superintendent of Public Instruction to seek such legislation as shall secure complete enforcement of that law.

7. *Resolved*, That it is the sense of this Association that the Superintendent of Public Instruction urge upon the Legislature such change in our school law as shall secure efficient county supervision of our district schools.

8. *Resolved*, That we as an Association respectfully call the attention of the Superintendent of Public Instruction to the suggestions contained in Prof. King's paper.

9. *Resolved*, That we congratulate the schools of Michigan and their 15,000 teachers upon the good sense of the people of this great commonwealth in selecting so experienced and eminently qualified a man as Joseph Estabrook for Superintendent of Public Instruction.

CHAS. W. PICKELL,
E. A. WILSON,
E P. CHURCH,
WESLEY SEARS,
AUSTIN GEORGE,
Committee.

Resolutions regarding Bay View Summer School referred to the executive committee.

The election of officers resulted as follows:

OFFICERS.

Supt. J. W. Ewing was elected President on first ballot.

The committee on nominations made the following report:

First Vice-President, President D. A. Stevens, Adrian.
Second Vice-President, Supt. J. A. Stewart, Monroe.
Secretary, Supt. C. W. Pickell, Ludington.
Treasurer, Supt. E. L. Briggs, Grand Haven.
Members of Executive Committee, Prof. L. McLouth, Supt. H. N. French, Supt. L. R. Halsey.
Members of R. C. Council, Mary E. Tilton, Lansing, and Prin. L. C. Hull, Detroit.
For Representative to semi-centennial celebration of the founding of the State University, Prin. J. M. B. Sill.

On motion the report was adopted.

The Secretary was instructed to furnish copies of the proceedings as follows:

To the officers, ten copies each; to those presenting papers, five copies each; to members, two copies each.

J. W. Ewing, President-elect, was introduced and made a few appropriate remarks.

The association then adjourned, with bright prospects for the future.

REPORT OF THE TREASURER.

Debit.

1886.		
Jan. 6.	To amount from former treasurer	$109 96
" 23.	To amount from former treasurer	84 60
Dec. 30.	To annual dues	141 50
" 31.	To annual dues	1 00

Credit.

Aug. 4.	By cash to Thorp & Godfrey		$27 75
" 4.	By exchange		10
Dec. 9.	By cash to President Howell		50 00
" 9.	By exchange		10
" 28.	By cash to President Howell		50 00
" 28.	By cash to Ypsilanti Commercial		1 00
" 30.	By cash to George Barnes (Secretary), postage, express, telegrams		8 23
" 30.	By cash to George Barnes, for President Howell		5 50
" 30.	By cash for paper		25
" 30.	By cash on hand		194 13
		$337 06	$337 06

Respectfully submitted.

A. C. BROWER, *Treasurer.*

LIST OF MEMBERS, 1886.

Names.	Residence.	Names.	Residence.
Arbury, F. W	Fenton.	Ehns, Florence	Lansing.
Ballou, J. M	Otsego.	Everest, Louie	Lyons.
Bradley, H. S	Edmore.	Enos, Henry M	Charlevoix.
Barnes, Geo	Howell.	Fiske, L. R	Albion.
Brower, A. C	Plymouth.	Fisher, Elbert M	Marine City.
Budlong, Sara M	Marshall.	French, Henry N	Kalamazoo.
Bliss, Mrs. Clara W	Jackson.	French, Irving W	Olivet.
Benedict, Geo. B	Stanton.	Fall, Delos	Albion.
Bemis, C. L	Portland.	Fitch, Ferris S	Pontiac.
Burkhead, S. G	Saginaw City.	Ferguson, Mrs. S. C	Howard City.
Briggs, E. L	Grand Haven.	Glasgow, J. B	Jackson.
Bell, Myrtie L		Greeson, L. G	Grand Rapids.
Beal, W. J	Lansing.	Gorton, L. G	Detroit.
Bater, C. O	Owosso.	Graves, M. O	Wyandotte.
Biscomb, Joseph	Grand Rapids.	Glenn, Geo. P	Muskegon.
Brandt, G. R	Byron.	Griffith, E. L	Laingsburg.
Cornell, Mary	Harrison.	George, Austin	Ypsilanti.
Cornell, P. D	Harrison.	Glover, Fannie Eugenia	Niles.
Crane, Mrs. S. A	Port Huron.	Gephart, Hattie	Niles
Corbett, F. W	Reading.	Gaige, F. S	Concord.
Church, E. P	Grandville.	Glafke, jr., Fred	Mendon.
Cox, Wm. J	Hancock.	Hall, A. S	Cadillac.
Chaffe, Mrs. C. G	Flint.	Howell, D	Lansing.
Clark, T. S	Davisburg.	Hoyt, Chas. O	Grass Lake.
Cole, C. H	Hastings.	Howell, W. C	Hoytville.
Cheever, W. H	Three Rivers.	Hume, Maria A	Lansing.
Cook, Albert P	Milford.	Hull, L. C	Detroit.
Camp, Mrs. Mary E	Jackson.	Halsey, L. R	Battle Creek.
Chittenden, Miss Lucy A	Ann Arbor.	Hamilton, Libbie C	Cheboygan.
Clapp, Ashley	Vicksburg.	Hall, Marcia	Plainwell.
Dodge, Chas. W	81 Pine Street, Detroit.	Hallock, Ella E	Hastings.
		Haynes, A. E	Hillsdale.
Demorest, E. J	West Bay City.	Hill, Jennie K	Plainwell.
Drake, J. H	Battle Creek.	Hall, C. B	Detroit.
Dodge, E. C	Willard.	Hammond, D. A	Tecumseh.
Dewey, H. C	Dowagiac.	Hahn, Millie	Niles.
Davis, John P	Niles.	Johnston, J. G	Hancock.
Downie, N. L	N. Muskegon.	Johnson, C. E	Lansing.
Dennison, Mary J	Cheboygan.	Jones, Louisa M	Charlotte.
D'Ooge, B. L	Ypsilanti.	Kaub, Mrs. L	Harrison.
Estabrook, J	Olivet.	King, H	Olivet.
Emery, Wesley	Lansing.	Lovell, Miss A	Grand Rapids.
Ewing, J. W	Ionia.	Luddeback, Elnora	Hubbardston.
Estabrook, J. B	Olivet.	Legg, Peter	Bismarck.
Edgecumbe, Geo. J	Benton Harbor.	Lamson, J. G	Hillsdale.
Ellis, Wm. A	Detroit.	Lane, H. E	Webberville.
Ewing, J. T	Petoskey.	Laird, S. B	East Tawas.

LIST OF MEMBERS.—*Continued.*

Names.	Residence.	Names.	Residence.
Lockwood, Gertrude	Dundee.	Russell, E. M	Paw Paw.
Munson, W. H	Centreville.	Robinson, W. E	Detroit.
McDonald, Marion	Mason.	Ransom, W. E	Cheboygan.
Morley, M. Etta	Flint.	Rice, Miss S. S	Fort Gratiot.
Manning, J. W	Chesaning.	Rankin, H. C	Olivet.
Mayhew, Ira	31 Moffat Bl'k, Detroit.	Seibly, Emma	Lansing.
		Stanley, M. H	Milan.
Mayhew, Emma	31 Moffat Bl'k, Detroit.	Sears, Wesley	Flint.
		Shaffer, Miss M	Lansing.
Mickens, C. W	Cassopolis.	Sutton, Miss Nellie	Detroit.
Mead, Miss Mary	Chesaning.	Slauson, H. M	Houghton.
Meddaugh, M	Sebewaing.	Stephens, D. S	Adrian.
MacKibbin, Stewart	Pentwater.	Stewart, John A	Monroe.
McCurdy, Chas. W	Sand Beach.	Shartau, G. A	Mt. Pleasant.
Montgomery, J	Kalamazoo.	Swain, Arthur J	Owosso.
McAndrew, W. A	St. Clair.	Smith, Clara	Niles.
MacEwan, E. J	Lansing.	Sill, J. M. B	Ypsilanti.
Mosher, Geo. F	Hillsdale.	Stoughton, Lillia	Kalkaska.
McKenney, Chas	Vermontville.	Smith, F. S	Sheridan.
McMahon, Lois	Ypsilanti.	Stone, Viola	Mason.
McCall, J. N	Ithaca.	Taylor, F. M	Albion.
Nichol, J. E	Bronson.	Tabor, Ella E	Lansing.
Nevins, Geo. C	Cheboygan.	Thompson, E. C	Albion.
Osinga, G. A	Otsego.	Tilton, Mary E	Lansing.
Osborn, F. C	Chicago.	Thompson, O. D	Romeo.
Pickell, C. W	Ludington.	Vanderwalker, Nina C	Calumet.
Philbrick, S. S	Oscoda.	Wagner, J. L	Grand Ledge.
Porter, A. H	Chicago.	Wickham, F. O	Howard City.
Plowman, J. G	White Pigeon.	Wilson, E. A	Vassar.
Plunkett, E. M	Ovid.	Weed, Alice	Lansing.
Pierce, D. C	Decatur.	Willard, Luna	Lansing.
Pattengill, H. R	Lansing.	Willard, Hattie	Lansing.
Parker, P. M	Chelsea.	Wood, Frank E	Hancock.
Phillips, W. A	Manchester.	Whitney, S. E	Detroit.
Putnam, D	Ypsilanti.	Willits, Edwin	Lansing.
Perry, W. S	Ann Arbor.	Yntema, D. B	St. Johns.
Parker, Truman L	Elsie.		

GEO. BARNES,
Secretary.

D. HOWELL,
President.

ADDRESS OF WELCOME.

HON. WILLIAM DONOVAN, PRESIDENT OF BOARD OF EDUCATION, LANSING.

Mr. President and Ladies and Gentlemen of the State Teachers' Association of Michigan:

I can assure you, my fellow citizens of Michigan, that I feel honored, indeed, when, as President of the Board of Education of Lansing, I welcome you to the Capital City.

The educational institutions of Michigan are the pride of our State, and to you, as representatives of our educational interests are the citizens of our State looking with a great deal of satisfaction for present and future results along the educational line. The teachers of the State must very largely shape the future of our educational interests, as by thought and word and method they build their life-work into the educational structure.

I am a friend to practical education, and I believe the strong tendency of our educational system, all along the line from the infant class to the university is to close the gap between the theorctical and practical. So that, first, every student may be able to tell how to do, and secondly, that he or she may be able to do as well.

Fifty years ago there were not as many school children in the State as we have to-day in Lansing. There were not as many school houses as we have to-day in Ingham county; and while the expense then was less than twenty-five thousand dollars per annum, the expense this year for the support of the school interests of the State will approximate six millions of dollars. And while the value of the school property of the State fifty years ago was not more than ten thousand dollars, the total value this year is more than twelve millions of dollars. And be it said to the credit of our school interests, while in point of material prosperity Michigan has risen from the twenty-third place among the sisterhood of States to a place near the top, as a matter of fact, during the last twenty-five years of our educational growth, Michigan has always been practically at the top.

One thought occurs to me as I stand before you this evening. It is this: There are many here, I presume, who can express by algebraic formula those general equations by which problems within the range of mathematics may be solved; who it may be can write out the history of the wandering comet, and successfully predict its return; who could, by looking at the imprint of

the leaflet in the coal, or the shell in the rock, can write out for us the history of the geological formation of a certain period; or who can easily resolve a drop of water into its numerous primary elements, and reveal to us its beneficial and its hurtful properties. These, and all such as these, reveal to us the triumph of mind over the material forces of the universe.

But who is there in all the world wise enough to successfully and accurately write a formula which shall express exactly the weight and force of a well directed thought as it finds lodgment in the receptive hearts and minds of our students and children? It was my good fortune to have been born under the shadow of our great University, and to partake of its advantages, and as I look back over the twenty-five years of our educational growth in the State, I can see before me now a sprinkling, at least, of those who are now the veterans along educational lines, whose earlier days were shaped for the future by the best thought of the Cockers, the Williams, the Havens and the Tappens of their time. Who can picture to us accurately the influence of the lives of such men as Henry P. Tappen. To you, my fellow citizens, is committed as great responsibilities as devolved on them, and your work shall be to the future what theirs has been to the past. It is, therefore, with feelings of pride and satisfaction that the educational interests of the Capital City greet and welcome you here. Our love for the general work of your association bids us welcome you, and I doubt not but our spirit of selfishness makes us glad to see you, for anxious citizenship, backed by forty conscientious, hard working teachers, supplemented also by twelve members of the Board of Education, and a live superintendent, are heartily willing to devote their time to this Association, that we may individually and collectively absorb the approved thought of the Association for the benefit of the schools of Lansing. I am, for these reasons, especially, glad to see you, and on behalf of the citizens in general, but especially on behalf of our teachers and superintendent and Board of Education of the Capital City, bid you a very hearty and earnest welcome.

RESPONSE

BY PROF. A. E. HAYNES, OF HILLSDALE.

MR. PRESIDENT:—The poet has said,

> Three roots bear up Dominion: knowledge, will;
> These two are strong, but stronger still the third,
> Obedience; 'tis the great tap-root which, still
> Knit round the rock of Duty is not stirred,
> Though storm and tempest spend their utmost skill.

Obedience to the request of the President of this Association holds me prisoner in this glad hour and gives me both the honor as well as the pleas-

ant duty of replying to your earnest and highly appreciated words of welcome.

First of all, in behalf of my fellow teachers of Michigan, from her copper and iron bound shores on the north to her rich agricultural prairies on the south, from her salt wells and lumber mills on the east to her lumber mills and salt wells on the west; in behalf of each and of all, from him who teaches inside the bare walls of rough logs, where there are pupils who may yet shape the destiny of both the State and the Nation, to him who so ably presides over our justly renowned University; permit me to thank you for these words by which you bid us to the thirty-sixth annual feast of good things to come in connection with this meeting of the State Teachers' Association.

Standing here as we do, near the closing gate of the fiftieth year of our history as a State, let us for a moment look backward to its beginning and compare it with the present.

Fifty years ago to-night Michigan did not even belong to the sisterhood of States; she then had a population of about 175,000, now her population is eleven times as great. Then there was almost an unbroken wilderness from the shores of Superior, the great inland sea on the north, to the Indiana line on the south. Now the value of the annual products of her soil is eighty-eight millions of dollars, of her forests sixty millions, of her mines twenty-five millions and of her fisheries one million. Then there was scarcely a manufacturing establishment in the State, now there are nearly ten thousand. At that time there was not a mile of railroad in either peninsula, now there are over 5,000 miles in operation. Then but few church buildings had been erected, now the multitude of their spires point heavenward, while the dumb lips of their bells are waiting to ring in the second half century of our history.

Our educational growth in this period has not been less remarkable. At its beginning we had no Superintendent of Public Instruction, no University, except in name, no Normal School, no Agricultural College, no Denominational Colleges, no well-equipped high schools, in fact, we had almost nothing of educational value, except a wise provision of Congress for the support of the future public school. We now have ten thousand schools, with fifteen thousand teachers, who have in their care nearly half a million pupils. Our University has become one of the greatest of the western continent. During the last half of this period a half dozen colleges, largely maintained by the gifts of Christian men and women of limited means, have been doing excellent service in the cause of higher education. The State Normal School, too, has been blessing the State with its well directed efforts.

In this period, also, Michigan was the first State of our country to establish an agricultural college and the first to prove that such an institution can be successfully maintained. And during this period, too, she won the proud distinction of establishing the first school of its kind in the world for her dependent children. Nor has she forgotten those whose ears are forever closed to the voices of friends, whose lips are dumb and whose eyes behold not the glorious beauty of earth or sky. Her benign influence is even felt in her efforts to reform the erring youth within her borders.

In this brief review it would not be fitting to forget that at the close of the first half of this period our State was called upon to help in the defense of the nation's life, and how, during those four sad years, she sent ninety thousand of her bravest and best sons of the public school into the battle's

front, one-sixth of whom, in soldiers' graves, have given up the years of their manhood in the sleep of death in testimony of their love for human liberty and equality of rights.

During the past 36 years the Michigan State Teachers' Association has been a potent factor for good in this rapid development. It has been led and fostered by some of the wisest and best men and women of the State. Each year it has given an opportunity for rare social intercourse among all classes of teachers of our commonwealth, for the mutual consideration of questions of the highest educational value, and has furnished to the teachers of the State many of the ablest discussions of educational topics.

In concluding, Mr. President, allow me to say, that while we should rejoice in the history of the past and have a just pride in the progress already made, while we are thinkful for this kindly welcome and rejoice in the blessed privilege of again exchanging fraternal greetings, let us not forget that the present has its problems, important perchance as any since "Father Pierce" founded the school system of Michigan.

Some of these questions, such as how to secure the attendance of the 25 per cent of our school population who do not attend the public schools; the relation of education to the labor problem; the better districting and supervision of the ungraded schools and a more effective method of carrying out the provisions of the law providing for the teaching of the effects of alcohol and narcotics upon the human system—not only demand our most earnest attention, but that of every patron of our schools, of every patriotic citizen.

Duty done is victory won. May we take up the duties of this session and of our time with conscientious devotion and try to build as well for the future as have the noble teachers who have preceded us. May we remember in all our toil that though

The sun may fade and the stars grow pale,
And the heavens shall pass away,
Yet beauty of soul will never fail,
It will shine forever and aye.

PRESIDENT'S ADDRESS.

IMPROVEMENT OF CHARACTER THE LEADING OBJECT OF STUDY.

BY DAVID HOWELL.

Members of the State Teachers' Association:

Why are we here? That the members of this Association should assemble from the villages and hamlets of this vast commonwealth to communicate the results of their reflections, and impart the fruits of their observations and experience to each other, is indeed an object of highest commendation.

Over a third of a century has passed since the organization of this Association. Year by year its members have assembled to compare notes, and direct the spirit of inquiry on the important subject of education in the true path, and invigorate it by united exertions. No student of the rise and progress of the educational system of Michigan can escape the conviction that the deliberations of this body have had great influence in the development of the system of which we are now justly proud. That the Association has a future equally bright with the records of the past, no one acquainted with the intensity of thought on educational topics will deny. It is with a desire to assist in directing the spirit of inquiry that the following is presented:

Fifty years ago the president of the American Institute of Instruction, in an address before that body, said: "A mighty revolution is going on around us, involving not only the fortunes of dynasties, the forms of government and the distribution of political power, but the whole structure and organization of society, and destined to produce lasting and unalterable effects on the character and condition of our race." At the risk of being called an alarmist, I desire to repeat the assertion of Dr. Gray, and emphasize it by adding that what was true fifty years ago is true to-day. Those who are looking into the conditions of society and are studying the various social, economical and political problems of the day, see many conditions which make them apprehensive of the future. For many decades the tide of immigration has set against our shores with almost undiminished vigor. The gates of every nation on the globe have been opened outward, and there has burst out a living throng with faces set toward the promised land. Through the portals of Castle Garden have come a city in a week, a county in a month and a state in a year. But what of this? The ignorance of this vast throng of people of our peculiar customs and theory of government; their lack of ac-

quaintance with our language and proper appreciation of the duties of citizenship; and finally their clannish instincts have filled the larger cities and many sections of the country with great colonies as separate and distinct from American civilization as though planted on an island in a far away sea. In the low moral state, the limited intellectual development, and erroneous views of civil liberty of this people, lies the danger. To convert this heterogeneous mass of discordant elements into a homogeneous people possessed with intelligence, moral character, and a high appreciation of the duties of citizenship seems to be a function of the public school.

Our republic may be viewed as a proud moral edifice, reared by the hand of truth, and planted on the broad firm basis of intelligence. The prosperity, the stability, the perpetuity of the institutions under which we live, depend in no small degree upon the general intelligence and moral character of our citizens. The causes of the downfall of the ancient republics are legibly imprinted upon their historic page; Greece and Rome and Thebes were alike celebrated and admired for the protection and patronage which learning found within their walls; each boasted her philosophers, her statesmen, and her wise men; each was the envy and admiration of the other for their "academic shades and learned halls;" in knowledge of the arts and sciences, in learning and scholastic lore, each struggled proudly for the palm; Thebes had her Epaminondas and her academies of science; Greece had her Athens and her Demosthenes, and Rome her Cæsars and her Cicero—their senates were proverbial for the wisdom of their decrees, and a name of a senator implied one well-acquainted with the arts and sciences, and their untiring and most generous patron.

But Greece and Rome and Thebes have fallen! "Their cloud-capped towers," "their gorgeous palaces," "their solemn temples," their obelisks, their rotundas, and their coliseums, have indiscriminately fallen into one common sepulchre—their names alone remain to tell their former grandeur. Yet why is this? View them in their days of palmiest prosperity, and who could have foretold their downfall? Nay, it hardly dare have been premised! But time has shown their fall; time also has disclosed the secret of their fate. The "*mene tekel*," which was written on the walls of their prosperity and pride might be thus interpreted—"*learning unequally distributed, intelligence unequally diffused, knowledge substituted for character.*"

Greece and Rome and Thebes lacked in the distribution of learning, and the diffusion of intelligence a great element of power which we possess—the common schools. But, if we have within our borders large masses of citizens, who, although possessing some degree of intelligence, are lacking in the elements and development of strong moral character, we have the conditions of society in which anarchism and communism flourish as luxuriantly as does the oak of the forest in his native soil.

During the political campaigns of this year, the echoes of which are still reverberating through the land, much was said of the great problems confronting the American people, and how to ward off the seeming impending dangers which few attempted to conceal. In the consideration of these grave questions of State and national polity, so far as my observations extend, the public schools were not counted a factor only to the extent of teaching the rudiments of knowledge, mechanics, and arts.

That there are grave and important questions immediately associated with the welfare of our Republic, and demanding immediate attention, needs no

argument to determine; that there are lurking dangers in the tendency of political action, is no less clear. We have only to brush away the fallen leaves of political ambitions, crushed during the recent campaign, to behold much which should make us apprehensive.

Already are the forces assembling, and scarcely shall this association have adjourned before there will be waged within these walls a political contest, national in its bearing, the preliminary skirmishes of which fill us with alarm for the purity of our political institutions. That this is no exaggeration, even those who run may read.

You ask where is the remedy, where is our safety?

I reply, in the public schools. Upon the product of our schools depends the safety of state and nation.

It has been well said that the common schools are the bulwark of the nation, but if they teach no more than the rudiments of knowledge and the literature of the language, our boasted civilization is a baseless fabric, likely at any time to disappear as the morning mist.

Fifty years ago, Lord Macaulay espoused the establishment of missionary stations in British India, claiming that the education of the youth of that country in the English language and literature alone would destroy idolatry among the people. Schools were established. Thousands of the youth of India were taught to read and write the English language, yet Lord Macaulay lived to see, during a brief loosening of the British power in the Crimean war, one of the most revolting mutinies and massacres the world has ever known. Instances might be multiplied to prove that intellectual education alone does not fortify any race against natural depravity of heart.

You will not, therefore, I am sure, think it out of place, if, on this occasion, I throw out some words of caution, and a few hints at what should be the leading object of effort in all our public schools.

In the execution of this purpose I present the following topic: *Improvement of Character the Leading Object of Study.*

Education is too generally regarded as a means to some more ultimate end, and not sufficiently valuable in itself to authorize the requisite expenditure of time and money and toil for its acquisition.

Professed students themselves seem too seldom smitten with a love of truth for its own sake, and the mental discipline which its study will secure. That high state of mental improvement which the capabilities of the mind allow and require, will not be attained without right views of the chief object of all scientific and literary pursuits. When education shall be regarded as a most valuable end, no less than a most efficient means, then only can it do for society its destined work. There are elements in the spirit of the age on this subject which may require consideration.

Utilitarianism is the boast of our times. And it will be admitted that utility is the ultimate and only infallible test of excellence. But the use of a false standard of utility is the great and common mistake. There is not unfrequently manifested a disposition to value everything at what it will exchange for in the market. This is considered its worth; intrinsic value being out of the question. This method of valuation leads to contempt of the man who, though he unites to his immortality every other element of worth, has not the quality of rapid money getting. We have seen the intellectual gem treated as contemptuously as the trodden dust. And some to whom we have a right to look for purer principles and safer example, have

undertaken to put heaven itself in the scales with gold, to be offered in the market, and sold, so that he who pays the highest price to the trafficker in the bread of life, shall feel himself most certain of its enjoyment. This erring spirit of utility has far too much to do in directing the course of pupils in our schools, from the primary to the college. It requires that kind and degree of education which can be soonest and most advantageously transmuted into gold and silver. It allows the process of school training to proceed only so far as preparation for the operations of trade, or the duties of professional life may appear to require. It demands that all study shall have direct reference to something to eat, to wear, to live in, to ride upon, or to gaze at. In directing the studies of the young, symmetry of character is not an object of its aim. Instead of inquiring for those defects, intellectual and moral, which require to be remedied by the combined influence of science and religion, it asks, "What is the student's strongest bent of mind? In what will he be most certain of success?" Being satisfied on this point, it demands for him those studies and only those, which will afford the largest development, and efficiency to those peculiar elements, regardless of the intellectual or moral deformity which may result.

In this country, the desire to become distinguished for great riches, is almost universally manifested even in childhood. Fostered by parental precept and example, as well as the respect and honor everywhere paid to wealth, no wonder it exhibits such an absorbing capacity and transcendent power. Among our native Americans, frozen-hearted, hollow-eyed, starved avarice, loving the naked metal, the legal representative of value, is not the evil most to be deplored. Money is loved for the show and splendor which it will support; for the power and professed esteem, or the sensual indulgence which it cannot fail to secure. This modification of the lust of gain has been, in a every age, a generally controlling passion. It is at this moment the mightiest impulse operating upon the masses throughout our country. We call its action enterprise. And, if restrained within healthy limits prescribed by a religious conscience, it may be favorable to physical improvement. But even thus restrained it can never promote intelligence nor morals, while its excessive, which is its ordinary development, keeps the public body in a constant fever, not indeed of the milder type, but a raging, maddening fever. It operates to sear the conscience, paralyze benevolence, and dry up all the fountains of sympathy. It is everywhere manifesting itself in deception, cheating, frauds, forgeries, embezzlements, and oppression.

It would be folly for me to attempt to encourage the student to affect a cynical contempt for the physical comforts of life. This is no part of my design. Nor do I forget that man is doomed to spend much time in laborious employments, to procure the means of subsistence. Their physical demands are imperious, and compel the majority to restrict their school studies to what is directly practical, and to hasten from exclusively studious to active life much sooner than is desirable. But this plea of necessity is often fallacious. Who pretends that the wasting toils, restless strivings, and conflicts of men are for a simple competence? The ruling desire is to excel each other in wealth and splendor. From this results the bustle, the unremitting toil, the wasting care, the strife and rage of society. And if necessity must curtail the period of pupilage, it need not, in this age and country, interrupt the progress of any in study and mental improvement. Examples of lofty aims at intellectual culture, nobly attained, in those who have toiled

laboriously and regularly, are too numerous to allow a shadow of excuse to any who would sit down contented in comparative imbecility and ignorance. Every one who regards the dictates of duty or the charms of truth can find time and means to improve in knowledge and mental strength. Nor am I forgetful that the desire to possess and appropriate that which we may call our own, and use, at will, for our sustenance and comfort, is inherent in our very natures, and not to be extinguished without a destruction of our being, or a cessation of the necessities, which, in the present life, make it indispensable. In obeying it we yield only to a spontaneous and lawful desire of the heart. But like all other desires, it is only impulsive, never directive, as to the proper degree and mode of its exercise. Like all other merely propulsive elements, this is legitimately the subject of conscience, enlightened by the revelations of God. Let the desire of gain be thus controlled; let it be gratified, not for its own sake, but for lawful ends, and in the use of lawful means; let it aim to please a rational taste for the beautiful and sublime in nature and art, to furnish leisure and facilities for the promotion of science and the culture of mind, and to aid in correcting the errors and vices of mankind; then, indeed, it is innocent, and assumes almost the dignity and purity of a Christian grace. But this is far from being its ordinary manifestation. It is seen in our intercourse with men in all the reprehensible features to which I have already adverted. So widespread and powerful is the influence of this inordinate desire, that few are free from its control; and the student is continually liable to loose sight of that improvement which is the proper end of all study, and devote himself exclusively to those inferior objects which can never dignify and ennoble his nature. This, fellow teachers, is one of the points on which I think it not inconsistent with the literary character of the occasion to throw out a caution.

And our pupils should be put upon their guard against the controlling influences of another class of motives, which may divert them, with equal certainty, from the true end of mental effort. I refer to the prevalent and raging desire for popularity and eminent station, which our democratic institutions tend to foster. The actual passage of many from the humblest birth through all grades of rank to the highest offices in the gift of the people, is held up before our youth as one of the grandest achievements of mind. The success of our distinguished men in attaining their posts of honor and power is often quoted as conclusive proof of their superior worth. Thus they become very naturally, though in many instances very improperly, the guiding stars to younger voyagers. Their hopes are fired with the brilliant prospects spread out in the field of fancy, and the whole of education is pursued with the design of fitting themselves for governors, senators, and presidents, instead of that loftier purpose of making themselves well disciplined men, fit for any station, high or low, which the service of God and their country may require. This desire for distinguished station and honors may be a safer motive for the student than the love of sordid gain. Study, under the controlling influence of the former, may result in a more rigid discipline of the intellect; but there is no power in either to reach and perfect these moral elements which are essential to true worth of character. These motives to study may make a miser, a knave, a cunning politician, a heartless demagogue, a skillful general, or a reckless panderer to a corrupt literary taste, but they cannot, operating alone, make a man—a truth-loving, conscience-

loving, independent-minded man. Such a product is the working out of far higher principles of action.

Other evils result to our young men educated under the controlling power of these reprehensible influences. Arrived at manhood, in the full possession of every qualification for the high stations which have long been contemplated with the most earnest desire, it only remains for them to secure the rewards thus richly deserved. Then commences a career of scheming, struggling and conflict that embitters the feelings, blunts the moral sensibilities, and brings the man into the dust and filth of self-adulation, low flattery, and detraction, from which he escapes with a loss of self-respect, for which the short-lived gratification of success is a wretched compensation. As a necessary consequence, political battles, from being contests of reason and argument for great and fundamental principles of political and moral philosophy, are degraded to despicable squabbles of the office-holders and the office-seekers, while society is excited and agitated in all its departments, and suffers, more or less, in all its interests.

When men who have been educated under the control of such motives fill our legislative halls, and chairs of state, as we might predict, every question that comes before them is viewed almost exclusively in its bearing on the public wealth and power. If they sometimes ask what will be the influence of the proposed measure on the intelligence of the people, little is apparently thought, and less said of its effects on their morals. Is the question of peace or war to be decided, its effect on national honor, the expenditure of blood and treasure that it will cost, and the probable issue of the contest will be duly estimated; but its disastrous influence on national morals, its tendency to arrest the car of human progress and wheel it backward to barbarism, are passed by as subjects unworthy the care of the statesman, and fit only for the consideration of doting divines.

Is the question of regulating, extinguishing, or even allowing the people of a commonwealth to have a voice in saying whether the instrument defining their rights shall be changed concerning the greatest curse and blot upon the civilization of the earth to be considered, the effect upon taxation, municipal income, and the distribution of political power are debated with imposing dignity and caution, while the young men who are yearly dragged down to destruction by this cursed evil are told to stand aside as an unimportant factor in the question.

On men educated with supreme regard to the eminence of wealth and power, the lessons of history are thrown away. In vain do Athens, Rome, Venice, and other fallen states, corrupted and enervated by wealth and luxury, erect their beacon lights along the sea of events, warning these careless voyagers to beware. They are not at all alarmed while the ship of state is dashing furiously onward, amid the very rocks and shoals where float, in dreadful profusion, the scattered fragments of numerous magnificent wrecks. They forget that increase in wealth and population does not necessarily indicate progress in national happiness and strength—that among a vicious people every additional dollar acquired, and inhabitant added to the general mass, only increase by so much the elements of weakness—that, as each additional leech on the animal body increases the exhaustion of the vital fluid, so every vicious man performs a part in the general depletion of the state—that the increments of national wealth among a corrupt people, are, like the garlands with which the ancients were accustomed to adorn the animals des-

tined for sacrifice, short-lived decorations, making a more rich and splendid offering for the altar of retributive justice. They forget that extensive territory, a fertile soil, and splendid cities, with vast fleets and armies, cannot make a powerful state—that men, intelligent, God-fearing, truth-loving men, are the only reliable elements of national greatness.

I have charged the enumerated evil results on these motives of study in such cases only as they are leading and paramount. How far they may be allowed to operate in a subordinate rank, I have not time to define, and it is not necessary to my design. Nor does it fall in with my purpose to show the place which love of fame, or regard to reputation, should hold among the motives which should prompt the student's action. All will agree that this, too, should be a secondary principle of conduct. I must hasten to the grand object that should ever be most prominent before the mind, in the whole course of preparatory study—*individual progress in all the elements of a good character.*

When it is asserted that *improvement of mind* is the primary object of study, some may think it folly to dwell longer on a proposition which all understand and admit to be true. And it may imply a distrust of the efficiency of the educators now assembled in council. Free from all feelings of this sort, I present truth, not for its novelty, but for its importance, relying upon this element of power to awaken the interest desired. I would reiterate what ought to engage the attention though uttered the thousandth time. Nor can I feel that reiteration is unnecessary while such multitudes are daily acting with supreme regard to wealth, power, and fame.

Mental improvement for its own sake commends itself to us as an object in every respect worthy of the best efforts, and as a motive of action most commanding in its influence and beneficial in its results. Most worthy is this object. For dark and unlovely is the mind without cultivation. Possessed it may be of strength, but erratic and fruitless in its exercise. It may have the substratum, and all the elements essential to untaught man, but remain powerless and dormant for the production of anything good and glorious. The materials of its greatness are a dark waste, void of all beauty and excellence. Untrained by study, unenlightened by truth, unadorned by virtue, it presents nothing to attract or cheer. If furnished with knowledge without discipline requisite to make it serviceable, how incongruous the scene—a child with a giant's armor, destitute of skill and strength to wield it! And that distorted specimen of a man, with well trained and informed intellect, employing the whole vast resources in degrading service of a selfish heart, who can admire him?

A most important element in the national bearing of this question is that mental wealth may be acquired to the largest extent without a possibility of loss to any, as a consequence. The wealth of the individual is the profit of the whole. Other possessions may be abused but worth of character can never do injury. These considerations vindicate the position that self-perfection is the primary object of study from the charge of selfishness. When this is held up as the highest motive to intellectual effort, there is no design to inculcate indifference to the improvement and happiness of others. I know not any way of doing good so effectually as by being good. He who would most effectually promote learning must himself be learned. I cannot conceive of any progress of the race which does not result from the progress of its individuals. If the elements improve, the entire mass will become better;

if they deteriorate, so also will the mass. This, I am aware, may not accord with views propagated by the authors of our new social systems. They would improve men in the lump by the magic influence of a new combination of circumstances. But a few more trials may convince the most skeptical that the good old way of beginning with one's self—casting out the beam in one's own eye, will most certainly and most effectually qualify him to promote his brother's good. All experience testifies that a good influence depends upon a good character, and this is at the cost of untiring perseverance in self culture, involving eternal vigilance over one's own mental status. A well trained and stored intellect, with a pure heart, will continually send out refreshing streams, that may, indeed, be unseen for a time, like little brooklets below the meadow's surface, the course of which can only be traced by the greener and more luxuriant vegetation along their meanderings; they will, however, flow on and on unceasingly, anon bursting up, sparkling with life and beauty and spreading health and vigor around. Every increment of worth acquired by any character is an increase in the riches of the universe. A great mind is common property. Its radiance will be seen going forth to bless earth and heaven; all the world some day will rejoice in it.

The man who wishes to be held in admiration by the present generation, and to send down to posterity an honored and glorious name, must be good as well as great.

The name of Washington was sacred while he lived, and sacred will remain through coming time; history, herself inspired, shall catch the theme and

> " Proud of the treasure, shall march down with it
> To latest time, while sculpture, in her turn,
> Gives bond in stone, and ever-during brass,
> To guard him, and immortalize her trust!"

Talleyrand, his equal, perhaps, in diplomatic skill and mental powers, wears the title of the prince of plotters, and his name is found associated with intrigue, cunning, treachery, and fraud.

The man of talent, of gigantic intellect, without the noble quality of moral purity and holy virtue, is but the whitened sepulchre, all fair outside, but rottenness within ; the tempting fruit, which turns to ashes on the lips; the beautiful tiger with glossy skin and well proportioned form, which stands ready crouching for the spring to tear to fragments all that is lovely, pure and honorable, and to feed upon the life blood, health and happiness of man; the green volcano, filled with slumbering fires. which, by its inviting verdure, tempts the villagers to build around its base, and then o'erwhelms them with its molten lava!

Fellow teachers, let not our pupils emulate such men! Teach them to shun such as they would the poisoned chalice or viper's fang, for contact is contamination, and association moral death !

If the products of our public schools are men armed in the panoply of immortal truth, the pillars of our nation's strength will stand invincible and unshaken.

The waves of rude hostility and scorn may dash with boisterous surges round the base of their foundation rock, but still they stand firm as the monument of ages. The angry sea of calumny and strife may rage in wild commotion, with its rocking storms, and roll its foaming billows mountain high;

the political world may be convulsed by storms and tempests; the deafening thunders of anarchy and misrule may reverberate with horrid peals from shore to shore; the forked, lurid lightnings of rebuked iniquity may flash fierce vengeance, till the whole horizon grows with the light of their unholy fires; the hollow blast of kingly rage may howl with terrific fury; tyrants may rage, and guard with naked swords and bristling bayonets, nay, call on the whole "pomp and circumstance" of glorious war to defend their tottering thrones and fading diadems. Amidst it all the republic will stand. The "ship of state" will sail grandly, proudly on, the beacon light of ages yet to come.

Let us, then, whilst we cultivate the mental, elevate the moral condition of mankind! Let intelligence be irradiated by the sacred influence of moral, virtuous instruction; let learning flourish in our midst, leaning for support upon the friendly arms of *Piety* and *Truth*. Let us know, appreciate and do our duty, for by its fulfillment or neglect our ashes will be sanctified or our graves dishonored.

PROPER LIMITATIONS AND RELATIONS OF SUBJECTS TAUGHT IN UNGRADED SCHOOLS.

BY S. G. BURKHEAD.

By ungraded schools we generally mean country district schools, each having a single teacher.

In most respects these schools seem to be without system. As to amount and kind of work done they are without prescriptions. They have no practical supervision.

Each teacher, during his mono-term of office, is limited only by his own discretion, ability, or pleasure; depending somewhat, of course, upon the good will of his patrons. He may do much or little so he please.

It is fast coming to be the general opinion of intelligent men interested in our public school system that there are defects at the foundation which seriously influence all the superstructure.

Childhood and youth are the periods for preparatory study, or that which belongs to our schools. A large majority of school children are primary. Whatever affects the child affects the man. We cannot expect anything like perfect work anywhere in the upper grades of our schools and colleges unless good work be done in the lower grades from which the upper are supplied.

I need not argue, at length, that the opportunities of childhood affect manhood and consequently citizenship; that primary teaching affects all the upper schools, that the chaotic condition of our country schools renders the whole system defective. I need not stop to show the chaotic condition of the country schools. Every intelligent, conscientious teacher in our State painfully realizes this fact. We are all dissatisfied with the condition. The obstacles, however, in the way of reform seem to be many and to have been insurmountable. The individuality and isolation of school districts; the inability and carelessness of school officers; the inexperience and incompetency of teachers; the indefiniteness of requirements; inefficiency of examination and supervision; the brevity of the teacher's tenure of office; the general lack of professional spirit and training, largely constitute the mountain of difficulty.

In an isolated school with, in many cases, an inexperienced, untrained teacher, with no help from school officers, rules and regulations, prescribed

outline of work, left to his own caprice or that of parents and children, in the nature of the case, anything like satisfactory results cannot reasonably be expected.

In some way the schools must be, to some extent, unified and brought into line or lines of work.

Of course, in a country school having only one teacher there cannot be that nicety of grading and division of labor that we may find in our village and city schools, but as long as there are no boundaries set by authority the most intelligent and experienced teacher may be disturbed by the selfishness of parents and scholars. Some influential citizen may be preparing his sons and daughters for college, and wish them to be tutored in higher arithmetic, algebra or even Latin and Greek. If the work be not limited it may be the pleasure as well as policy of the teacher to neglect the unmurmuring little ones for these. His popularity may depend, not on the good he may do the greater number, but on his ability to teach the higher branches and please the older pupils.

It seems to me, however, that the principal work and the important work of a country school is primary.

In an ordinary school there is enough primary work to keep one teacher busy. The primary should never be neglected for the secondary or higher. Higher arithmetic, algebra, etc., have no legitimate place in an ordinary district or country school. If, in any district, two or more teachers are employed, the condition changes, and more advanced pupils may be accommodated.

But the beginning of anything is chief, not more in other things than in education. How much the very first day of school may influence the life of a child and the man we cannot tell; but we believe that the first term or the first year may be considerable towards fixing the direction of his tastes and habits. His sensibilities may be dulled and he may be injured for life, or he may be given an impulse that will be helpful in improving the grand opportunities of early and later life.

If a child is well-governed, taught perfect obedience to rightful authority, is drilled to read and write well, and to speak properly; to perform accurately and rapidly the fundamental operations in arithmetic; to take a few steps in the elements of science, he is better started for a higher education and the duties of life than one who has been allowed to pass prematurely over the higher branches.

Reading and the reading habit are very important factors in an education. Much of the first years of school life should be given to reading and the expression of thought. The excuse, "I know but cannot tell," should not be accepted: neither should a child be encouraged or permitted to repeat words without thought. First the thought, then the expression is the order. But for the want of time or consideration pupils are often supposed to understand what they commit to memory, when, in fact, the thought is entirely disregarded in the effort to commit and recall the words which are so soon forgotten. Words are too often defined without comment, in synonyms as obscure as the original.

A teacher cannot do justice to more than about sixteen or eighteen recitations in a day. If left without authortative limitation he is liable to have more classes than pupils and much of his time is wasted in passing from one exercise to another. Nothing is done thoroughly; nothing is mastered;

nothing is recorded; no standards are set; with every new teacher the pupils, many of them, are set back to the beginning of their books.

A graded course of study with carefully kept records, credit being given for every step taken; certificates of honor, promotion and graduation publicly granted, would tend to efficiency in our country as well as in our villages and cities. Why not? If grading or system is good for one school, why not for another? If so the obstacles will gradually, as I believe they will, vanish away; and the time will come when the term *ungraded* will no longer apply to so large a class of our public schools.

Keeping in mind that a teacher should not have ordinarily more than sixteen recitations per day, we see that four grades with an average of four recitations to each grade, would give us the limit.

Taking ten minutes for opening exercises and thirty minutes for recesses, in a school day of six hours, we have three hundred and twenty minutes for sixteen classes or an average of twenty minutes to each class.

Grouping the studies which seem to me inseparably connected or closely related, I would prescribe about the following course of study with the accompanying suggestive program, for a country school, remembering that it takes more than a paper course and a paper program to make a successful graded school, however necessary these instruments may be. There must be wisdom in the management of machinery.

DAILY PROGRAM.

Time.		Recitations.	Study.			
A. M.						
Begin.	End.	All Grades.	Grade I.	Grade II.	Grade III.	Grade IV.
9 : 00	9 : 15	Opening Exercises				
9 : 15	9 : 30	Reading I		Reading	Arithmetic	Arithmetic
9 : 30	9 : 45	Reading II	Arithmetic		Arithmetic	Arithmetic
9 : 45	10 : 05	Arithmetic III	Arithmetic	Arithmetic		Geography
10 : 00	10 : 30	Arithmetic IV	Arithmetic	Arithmetic	Geography	
10 : 30	10 : 45	Recess				
10 : 45	11 : 00	Arithmetic I		Arithmetic	Reading	Geography
11 : 00	11 : 15	Arithmetic II	Reading		Geography	Geography
11 : 15	11 : 35	Geography III	Reading	Reading		Geography
11 : 35	12 : 00	Geography IV	Reading	Reading	Reading	
P. M.						
1 : 00	1 : 15	Singing				
1 : 15	1 : 30	Reading I		Reading	Reading	Reading
1 : 30	1 : 45	Reading II	Reading		Reading	Reading
1 : 45	2 : 05	Reading III	Reading	Reading		Reading
2 : 00	2 : 30	Reading IV	Reading	Reading	Geography	
2 : 30	2 : 45	Recess				
2 : 45	3 : 00	Reading I		Reading	Arithmetic	Arithmetic
3 : 00	3 : 15	Reading II	Reading		Arithmetic	Arithmetic
3 : 15	3 : 30	Health, Morals, and Manners				
3 : 30	4 : 00	Penmanship and Bookkeeping				

COURSE OF STUDY FOR COUNTRY SCHOOL.

Studies.	Grade I.	Grade II.	Grade III.	Grade IV.
1. Reading	First Reader...	Second Reader	Third Reader..	Fourth Reader
1. Spelling	First Reader...	Second Reader	Third Reader..	Fourth Reader
1. Language	First Reader...	Second Reader	Third Reader..	Fourth Reader
2. Penmanship	On Slates, etc..	Copy Book.....	Copy Book.....	Copy Book.....
2. Drawing	On Slates, etc..	Drawing Book	Drawing Book	Drawing Book..
2. Book-Keeping	.....	.....	.....	Simple Acc'ts...
3.—Arithmetic	Oral.....	Oral.....	Practical.....	Practical.....
4. Geography	.....	.....	Use of Globes, etc.	Outlines, B'ks, etc.
4. History	.....	.....	.....	Outlines, B'ks, etc.
4. Civil Government	.....	.....	.....	Outlines, B'ks, etc.
4. Natural Science	.....	.....	.....	Outlines, B'ks, etc.
5. Music	(.....	.....	.....	.....)
5. Health, Morals and Manners	(.....	.....	.....	.....)

In this grouping the reading lesson is made the basis of spelling and language work, including declamation; and in my own theory and practice, penmanship also, a large part of it—nearly all of it in the first or lowest grades —is inseparably connected with the reading lesson. A word is not fully the child's until he can use it in oral and written work; until he can name it at sight, spell it and write it, and use it in the expression of his own thoughts, as well as those gotten out of his text-book.

In the upper grades the reading lesson may be made the basis of composition and grammar. As early in the course as possible, and thereafter more and more, the pen should be daily employed in the preparation and completion of school exercises.

Neatness and legibility should be the aim in a piece of writing. The simplest form of letters, not ignoring beauty, is best for children.

A text-book on grammar and composition, except as a book of reference, would not be necessary if a suitable reading book be chosen and properly used. Simply calling the words after the teacher and accidentally getting some knowledge of the lesson is not even approximating the grand possibilities of the reading lesson.

In reading, children are generally graded too high for their years, for their experience, or for their degree of actual advancement in ability to apprehend. They need more corresponding reading in each grade before advancement. They should not be pressed forward any faster than they can be supplied with a practical vocabulary.

The Fourth Reader is generally sufficiently advanced for an ordinary school, such as we generally find.

The reading group, with language, writing and spelling, is the fundamental and most important of a course of study.

With ability to read well and a correct taste for reading, all else will, in due time, be possible.

Penmanship, book-keeping, and drawing, to my mind, group themselves.

Besides the careful attention given to all written work in the preparation of lessons, there should be a set time on the program for special instruction and practice in penmanship. Penmanship is, perhaps, more generally neglected in country schools than any other branch in the school course. Good penmanship appears to be reckoned among the "lost arts." It has been said that "writing is a secondary part of speech, and they who cannot write are in part dumb. Scrawls that cannot be read may be compared to talking that cannot be understood; and writing difficult to decipher, to stammering speech."

Teachers of penmanship should avoid complicated forms. There is no need for many forms of the same letter. It is better to master one. Teaching penmanship is something more than setting or placing a copy before the pupils. There should be more than imitation in the writing class. "Writing, in all its grace, ease, and perfection, must first clearly exist in the mind before the hand can, by any amount of exercise, be taught to produce it. The hand can never transcribe a form more perfect or beautiful than the ideal of its master—the mind. Hence the vital importance of preceding and accompanying all practice, in writing, with a careful study of its mechanical construction. The exercise, or copy, for each lesson should be systematically arranged so as to present, forcibly and concisely, at each lesson, some important feature of writing."

The forms of letters chosen should be suitable for rapid business writing. In the brief country school life there is not time for fanciful forms. I would mainly limit the work in this, as in other branches, to the practical.

At present, in our county schools, letter-writing and book-keeping receive next to no attention. Some schools, of course, are exceptions. "To be able to write a good letter is greatly to a person's advantage in any occupation." The teacher should be familiar with the best forms of heading, dating, addressing, subscribing and superscribing letters; and occasionally, perhaps once a week, give instruction and have pupils practice, during the writing hour, in this useful exercise. Letter-writing is well said to be the most useful of all classes of composition. A great many mistakes occur, and a great many losses follow from inability to write and direct letters. Pupils may be early encouraged to write to teachers and other friends, out of school hours, and thus improve their minds and give pleasure to themselves and others.

A practical knowledge of book-keeping may be given to the older scholars without infringing on the time belonging to other school duties.

With a sufficient knowledge of arithmetic and ability to write well, a fair knowledge of the forms of written instruments in business, such as receipts, promissory notes, agreements, deeds, etc., might be easily obtained. Pupils should receive in school, at least sufficient instruction on the subject of book-keeping to enable each one to keep his own accounts. This can be done without an expensive and elaborate set of books and blanks. The skillful use of the blackboard by the teacher and the use of ruled paper by the pupils will be sufficient for all practical purposes.

"A commercial department" does not generally prove to be a very profitable addendum to a high school, and I am sure it has no place in a country school.

"Drawing is now regarded by the foremost teachers as the most effective method of fixing the form of an object in the mind. It is practiced with profit in the study of all the common branches." As a specific subject it

may very properly alternate with penmanship, and drawing books of some series may be used; but I think drawing directly from objects, with simple directions by the teacher, almost from the beginning, of incomparable value. Copying, of course, has some merits and books may be used with the aids now furnished to teachers, without much previous knowledge or skill. The time is coming, I think, when teachers will be required to have some practical skill in this art.

Arithmetic probably deserves a large place in a common school course of study. It always has had it, and no doubt always will have its share. I think it has sometimes been allowed to occupy too much space. Other important branches have been set aside that its domain might not be encroached upon—sometimes unwisely, perhaps. I have grouped it with nothing else and allow it an equal place with the reading or geography group. I think it deserves no more.

The fundamental rules should be thoroughly mastered. Most mistakes in arithmetical work occur in them. The first two grades of the course should be almost exclusively devoted to the operations of writing, adding, subtracting, multiplying and dividing numbers, with perhaps in the second grade factoring and cancellation. In the third and fourth grades a *practical* practical arithmetic may be used to advantage—nothing higher. Higher arithmetic and algebra should be entirely excluded. From the practical arithmetic all redundancies should be shut out.

There might be a question as to what is redundant. I reply that where the teaching force is so limited and every subject cannot be taught well, those subjects which the child will practice in later life should have the preference. Circulating decimals might be wanting under this test, while the following would be considered worthy of place and consideration. Fractions, ratio and proportion, compound numbers, square and cube root, percentage, to include commission, profit and loss, taxes and insurance, stock investments and interest.

The geography group is one of the most interesting. How to make our suggestions practical is of moment. We cannot expect to have separate classes with elaborate text books for each, in geography, history, civil government, natural science, etc., respectively, neither do I think it desirable. There is too much page by page, text-book, detail, word-memoritor work attempted. There is not enough of how to study, how to obtain essential information, how to secure culture. Why need any one care to load the memory with the names and locations of unimportant places, or to learn in detail all that may be found in text-books on civil government, physiology, etc. Discipline and general knowledge, with ability to use books as tools, are essential. If pupils in our country schools were taught how to study, how to find information when needed, how to discriminate between the essential and the non-essential, and inspired with proper motives to pursue their work continuously until satisfactory results should be obtained, we would be able to note true progress. "Geography and history are inseparably connected and should always be studied together." As geography is defined to be "The science which treats of the world and its inhabitants, a description of the earth, including its physical structure and characteristics, natural products, political divisions and the people by whom it is inhabited," it seems to me but natural to include also in this group some of the general topics of civil government and the natural sciences.

Without the time for further detail let me say I would recommend a carefully prepared outline of suitable topics, including the essentials of this group, with the use of globes, maps, charts, and reference books. In the elaboration of daily lessons the crayon, pen and pencil, etc., should be familiar companions. Expression in some way, oral and written, should be auxiliary in preparation and a test of work done. This group, well taught, requires much reading, thinking, and writing; hence its value in the line of culture.

Music should not be left out of any course of study for the young. It should certainly be made a part of the daily program in every public school. There is generally a great want in this respect in our country schools. In this, as in so many other things, nothing is required, and but very little is done, but there is a growing sentiment in favor of making music one of the branches in the common school course of study. If it be true that children should be taught that which they should practice in after life, they certainly should be taught to sing. Music may furnish them both pleasure and profit in after life. In the group with music I would place health, morals, and manners, though I might want a special place on the program for each, according to circumstances. Music need not in any way retard pupils from learning their ordinary lessons. I think it is generally helpful and they learn more happily and readily than they would without. Music tends to enliven and render a school interesting. It appeals to the emotions, and an occasional outburst of song will drive away the dull spirit of routine and inspire the pupils to renewed effort. With ten or fifteen minutes a day for drill and learning new pieces, and a song to open and close each session, a great improvement will be made in a few months, and an interest will be created which will become a matter of pleasure to teacher and pupils. Music increases the respiratory organs, thereby improving health. We have no doubt of its moral influence.

"By music, minds an equal temper know,
Nor swell too high, nor sink too low.
If in the breast tumultuous joys arise,
Music, her soft persuasive voice applies;
Or, when the soul is pressed with cares,
Exalts her in enliv'ning airs."

Pure music—the only kind that would be likely to find its way into our schools—not only pleases the ear but improves the heart. "No one can listen to pure music without feeling a desire to do better."

The subject of morals and manners should receive special daily attention. Its importance demands some definite time that it may not be neglected. I think our youth are not generally noted for politeness and good manners. The cause may be found in the general lack of instruc ion, and perhaps, example. It is prerequisite that a teacher strive to be in morals and manners, and good habits what he would have his pupils be. I know he may teach important lessons by example and do much good incidentally, if his heart is on the highest well being and doing of his pupils, but "any instruction upon important subjects should be regular and systematic." Should the morals of children be left to accident?

Besides instruction as to what is right and wrong, how to treat schoolmates and teachers and others pleasantly and politely, is worthy of instruction.

Personal habits, as they affect health and happiness, should receive more than a pssing or accidental notice.

Due regard for the feelings of others and for the rights of property should early be instilled.

Successful studentship includes vastly more than is generally thought of. It certainly should be made to include all that is desirable in the daily school life of a boy or girl in view of the possibilities of the future man or woman.

A course of study should be sufficiently flexible to accommodate the varying necessities of different school districts. Some schools may be smaller in number and less advanced than others. Some may be large in number, but backward in scholarship. Some may only include the first and second grades, others may include the third, and perhaps only a few of the best will, for a while, fully include the fourth, preparing for the high school. Some of the largest and best schools may employ assistants to great advantage. The daily program must vary, too, to correspond with these varying circumstances. In the grouping of studies and in the daily program suggested, I have had in mind the outside limit of work that should be attempted by any one teacher. In the smaller schools having only the lower grades, the grades may be subdivided and the classes multiplied and placed nearer one another without breaking up the general plan. Other things being equal, the more closely a school can be graded, the better.

"If we wish to make all the country schools of the State as one working school, then there should be a uniform course of study and system of grading in all the country schools of the State. And this is the plan that is finding favor in the eyes of the foremost educators." And it is the only way to secure proper relations and limitations of subjects taught in our country schools.

"In several States the work of grading country schools has been carried on by counties working singly and separately. This method is good as far as it goes, but it is fragmentary, and slow to reach all the counties of the State." In our own State some individual districts have attempted to grade their schools.

It seems to me that little improvement can be expected under the present system, or want of system. The unit should be larger than the district. System requires supervision. The territorial unit should be large enough to employ a competent supervisor; an able man or woman devoted entirely to the interests of the schools; a professional teacher—not a doctor, lawyer or farmer who can, at best, give the schools only the secondary or "fag-ends" of his time and ability. While we have made, in my opinion, one or more backward steps, many of our sister States have been advancing. We have no longer the honor of being first in the character of our schools. Our lone district schools have been left out in the cold long enough.

Let us gather them in in some way. The township plan is recommended to us by men of high educational authority. Would not its adoption be a grand step in advance of our present position?

Will not this meeting take some action toward retrieving our past retrogressive movement and toward completing our system of education, so that the common school, the high school and the college may really be in the same line, though in different grades, all feeling the impulse upward by means of the connection? Until this desired object be reached, we better refrain from boasting.

DISCUSSION.

Prof. A. E. Haynes asked in what group alcohol and narcotics would come.

Supt. S. G. Burkhead : I would put it in the health and morals group.

Prof. S. D. Barr, of Albion, said :

Great stress should be placed on the lowest work in order to prepare for the higher.

The lower work, such as reading, spelling, etc., is too much neglected in the district schools. When pupils come to us from these schools and are asked to give a written exercise in composition, it is impossible to tell what they mean.

The unit of examination and supervision is too small to insure the best results.

The higher studies should be excluded from the district schools.

If we had the township system of grading, work of a lower order might be assigned to the outlying teachers, and the higher work be done in the central school.

The schools, now isolated, must be connected in some tangible way.

THE WANT, THE WORTH, THE CULTIVATION OF A TASTE FOR GOOD READING.

BY MARY E. TILTON.

A few years ago I became interested in some boys who were spending their spare moments in reading the yellow covered novels of the day. Some months previous one of the number had been interested in reading the Youth's Companion, and I offered to furnish him with the paper for a year provided he would give up the other kind of reading during that time. After due consideration, he decided in favor of the dime books.

We pity the distressed, we deplore the depraved taste of those addicted to drink, and we are quick to recognize the attending evils. But the insatiable desire, the morbid craving for the poisonous waters of low fiction makes but little impression upon us.

In our willful blindness or from our own want of a taste for the good, we fail to note the growing number of those whose minds are so out of condition they do not and cannot read a serious book.

As there is not a hamlet, town or city where the appetite for strong drink does not appear, so not a nook or corner can be found where the want of a taste for good literature is not apparent.

Nothing is so bad as that which deludes and seduces the moral sentiments. The following list of headings was taken from the columns of the current number of the Banner Weekly: "A Great Story;" "Duke Despard;" "The Gambler Duellist;" "King Dandy;" "Billy Bubble;" "The Outlaw Cadet;" "The Green Coat Detective;" "Christmas at Satan's Luck;" "Dare-Death Dick."

There is but one example of the literature that is being circulated broadcast throughout our land, through the instrumentality of the newspapers, or as special publication.

If you have ever examined the reading matter on the counters of the book-dealers, or at the news stands, you found that the Saturday Night, New York Ledger, Police News, and other sensational stories prevailed. One of our Lansing dealers says there is a little call for that which is good and helpful, compared with the demand for the other.

Enter the sacred precincts of the home, and you find on many tables the Waverly Magazine, The Lake Side Stories, Beadle's Dime Library, The Fireside Companion, Munroe's Stories, and others of like character.

The daily and weekly papers whose columns teem with crimes and evils constitute the reading of many respectable families in our cities, and that of most country homes.

The greatest demand upon the public libraries is for the light and frivolous, and they are able to furnish too much of this kind of reading. The goody-goody looks of the Sunday school reveal an unhealthy state of mind, and these are fostering and confirming an evil no less surely because doing it with the sanction of a Christian organization.

Whichever way we turn we see that which excites the passions and vitiates the imagination being pushed to the front. It is thrown in at our doors, it is thrust into the children's hands, and minds are becoming so diseased that these things are regarded as unimportant, or considered harmless offenders.

Sympathy is such a necessity of our being that success and happiness in life is largely dependent upon our relations with others. And yet the number of intimate friends of real life is small compared with those possessed in books.

Sir William Waller says: "In my study I am sure to converse with none but wise men; but abroad it is impossible to avoid the society of fools."

Give a man the taste for good reading and the means for gratifying it, and you place him in contact with the best society in every period of history. When one book has become a friend, the world has grown that much broader and more beautiful.

Books furnish cheering and soothing companions in solitude, illness and affliction. It is easy to gain access to them, for they are always at our service, and we may dismiss them at our pleasure. They are never troublesome, but always answer every question in the most kindly manner.

Milton will sing to us of Paradise, and Shakespeare reveal to us the treasures of the imagination and the working of the human heart, while a Franklin enriches the mind with practical wisdom.

By the contact of mind with mind ideas are gained and character formed. If a boy is able to read Irving's Sketch Book, and through the author's eyes see the Hudson, the Catskills, take poor Rip into his heart, pity Ichabod while he laughs at him, he possesses that which will be a source of happiness through life; he is furnished with a power for effectually wrestling with the problems of living.

Percy's Reliques stimulated Walter Scott to enter upon a literary career, and Macaulay, Carlyle and many other men of note were inspired by the reading of some one book, and educated by its silent force to a greater degree of activity.

What more can friends of real life do for us?

Familiarity with the most precious thoughts of great men would cause the gossip and meaningless chatter of much that is called conversation to cease. And with a more generally developed taste for good reading the saloons and haunts of vice everywhere would be less frequented; the gaming table and other evil amusements lose much of their charm.

A good author quickens our intellects, influences our hearts, inspires us with hope, gives strength, courage, faith. And he is a wise educator who suggests that the old adage concerning the songs of a country should be rendered. 'Let me direct the reading of a country, and I care not who makes its laws.'

Where does the responsibility for the want of a good taste rest, and what is being done to remedy the existing depraved taste?

In these days every man who writes a book is an author; no privileged places are reserved.

From this multiplicity of writers there is a growing carelessness in the subject matter. The aim is not to uphold right views of life; the lesson taught is not always good, nor the characters worth imitation.

We cannot stop the making of books, but we may and should purge the intellectual system, and create a demand for what is truly good and helpful. Printers and book-sellers make men's gabble as animated as print and publication can make it, and straightway it becomes literature. Then they do everything in their power to promote its circulation. Little can be done to prevent the publishing of reading matter.

The law forbids the absolutely vicious and obscene. The New York Society is doing something to restrain the issuing of pernicious literature in that city, but these efforts are like those of the picket guards where a vast army is needed.

To provide the best literature in as abundant variety of styles and prices as that of the poor, to advertise and present it to the public in such a way that it shall have an equal or better chance than its rival, is the surest way of settling the publishing question.

And this is being done to some extent by several of the leading firms of the country.

Book dealers as a general thing prefer to sell the best line of goods, but business policy requires that the taste of the people be suited. And so long as the popular cry is for the false and bad, just so long for commercial reasons will there be an abundant supply.

Much might be said in regard to the home responsibility in this matter. For it is true that parents are often observant as to the friends their children make, or the conversation they share, but are carelessness itself as to the printed language to which they entrust the young minds.

Children are permitted to make their own selections from the libraries and the night oil is consumed from other than studious motives.

A word to the wise is sufficient, but in the majority of homes there is not the intelligence, judgment or taste to aid in this work.

A plain, hard-working man entered a book store to purchase a book for his little girl. "What kind of book do you wish?" "Anything that's got pictures and don't cost more than fifteen cents."

There is little difference between this person and the rich man who ordered a book-seller to send him five hundred dollars' worth of books with no limitations or directions, save that a certain number of shelves must be filled. Then there is the lady who wants a book no matter what it is, provided the binding harmonizes with the new plush cover on her parlor table.

These parents cannot be held responsible for what they have not the ability to do.

A bright boy of ten or twelve years asked to be excused from the reading class. His request was granted, but during the recitation the teacher approached the pupil's desk to ascertain what his pressing work might be. The boy was so absorbed in reading a good story he was not aware of the teacher's presence. He was invited to read to the class, and he complied not only willingly, but read with so much life and animation that all listened eagerly.

Here was no lack of interest in reading, but a quest for something new. The boy had read his reader until he knew many of the pieces by heart. Do

you blame him for providing for a want of his being that others had failed to appreciate and provide for? This cannot be classed among the home failures, but is one for which the school must be largely responsible.

Before their young minds have become vitiated by the evil and ignorant, the children are sent from their homes to the school-room. Here they are taught to read. With this ability comes the power to read the worst kinds of books; therefore the public school puts into the hands of its children an instrument which may possibly be used to their own destruction. Experience proves the folly of giving charity unless we are able and willing to follow up our gifts and see that they do not harm instead of good. So the school has no right to teach to read without teaching how and what to read.

The public school gives the ability to interpret the printed page, what is it doing to direct the taste and confirm the habit of reading what is good, pure and elevating, rather than what is bad?

The log school-house and its spelling book filled with meaningless words are of the past, but strange to say the greater number of pupils to-day are compelled to spend the first five years of their school days in learning to read and pronounce by rule, and this too from one series of readers with their meager scraps of literature.

It is to the credit of the Michigan system of education that several of her leading schools have already taken progressive measures in this matter. But the majority of schools, especially of the country, are moving in the old ruts.

Where shall the remedy be applied and what shall it be?

The self-educated Robert Collyer was asked how he managed to always use such pure, simple Saxon. He replied, "When a boy I read Bunyan, Crusoe and Goldsmith, with stories from the Bible and Shakespeare, morning, noon and night: and without the least idea of what I was doing, got the taste for simple words into the fibers of my nature." Here is the key to the problem. Youth is the best time for making impressions, and the reading that molds character is generally done in early life. The way to master a subject is to begin at the beginning. So this work of cultivating the taste for good reading must commence with the primary rooms. Words must be taught, of course, but they need not be learned from second class or weary books.

The cravings for the marvelous are a part of every healthy juvenile nature. Is it not important that they be recognized, and satisfied from the first with other than weak, silly stories and sketches? Little ones delight in the bright and beautiful; they often perceive a beauty and fitness of things that more experienced eyes failed to observe. Instead of smiling at their pretty sayings as wonderful and precocious, why not accept them as the natural perfume of the tender buds, and seek in every possible way to nourish and strengthen the pure young life, that it may develop into the perfect flower? The little fellow who thought the wilted pansy was sorry for something because of its drooping head, might easily be led to turn his wondering eyes to the "infinite meadows of Heaven, and watch the stars blossoming into the forget-me-nots of the angels!"

Children cannot dwell in the presence of sweetness and light without being influenced by it, neither can they live within the sound of wisdom and truth, and their lives not be enriched by it. It is a question with me whether the child's taste, rightly formed, will ever be perverted. This work must be

continued through the different grades, and if it is made a part of a four years' discipline in the High School, it will not end with graduation.

Pupils advance from one reader to another with good results, but this work should be supplemented by other reading matter. Beyond the third, or possibly the fourth, throw the readers aside. At this point elementary drill should cease, and the pupils be prepared to extract mental nutriment from some of the classics. Pupils study what they must, but read what they love, thus supplement the text-books with that which will appeal equally in turn to the imagination, memory and reflection. One book is narrowing, so in connection with geography read travels, and in the study of history introduce short biographies. Since we must have stated readers provide two or three series of each grade, and let these be selected with reference to the subject matter instead of method. Make reading the center of primary and grammar school work.

Reading may rightly be called the keystone in the educational arch, for if it is unstable the whole structure falls. Pupils oftentimes fail in mathematics from the inability to understand the language of the problems.

Let the object of reading in the first grades be to learn words, to acquire a good vocabulary which the children can command and use. But in the higher grades pupils should look for the writer's meaning, they should be gaining ideas. Here the object must be to develop a taste for the beautiful and artistic in literature; to cultivate that continuity of thought so essential to the student's success; to acquire the power to distinguish between the worthless and the choice.

Still the desired end cannot be reached if the teacher be not a lover of good literature. In order to attune the minds and hearts of others to pure and noble strains the teacher must be in harmony with the teachings of truth and nature. It must be the teacher's aim to familiarize the young with the best mental ideas and so prepossess them with the culture of that which is wholesome and good, that they may have an honest, hearty relish for it. The ability to arouse thought, to awaken an interest in good literature belongs to the life that has felt its constraining and uplifting power. It is the teacher's mission to fill other minds with such loves and such intellectual tastes that habits will be formed whereby the vicious and false will be spontaneously refused and the true preferred.

Use the ordinary reading lesson of the day as a means of introducing the younger children to good literature. Read selections from the standard magazines. The reading of "Little Lord Fauntleroy" in one primary room led to the introduction of the St. Nicholas into four homes before destitute of reading matter for children. Find out what the older ones are reading. If they are not reading good books, go with them to the library, and show them what to get and how to use it afterwards. There will be cases of dullness and perversity, but unless a young reader has become thoroughly contaminated by the evil, his taste can be improved. We may not be able to cure a boy of reading Leadville Jack, The Game Cock of the West, by giving him Pilgrim's Progress, but we may induce him to give up Lone-eyed Jim, the Boy Scout, and others, to read one of Cooper's Sea Tales which will lead to something better.

The teacher must bring heart into this service. He must be on the alert to give a healthy tone to every thought, to weave the moral into each line of every lesson, instead of reserving it as an after thought for the end of the

chapter. Such education must not be hurried. It is the work of time. The forcing system is disheartening and depressing in its effect.

Teachers, strive to so labor that with all their getting your pupils may get understanding. To do this you must work diligently, carefully, earnestly, and you must wait calmly, patiently, hopefully. This do and yours shall be the reward of good and faithful servants.

DISCUSSION.

Supt. E. C. Thompson, of Albion, said:

One hardly knows where to begin to discuss so excellent a paper as the one to which we have just listened.

It almost seems as if most had been already said upon the subject, and if the few remarks that I shall venture to put be but the reiteration of what has been already mentioned, forgive it, remembering that "In the mouth of two or three witnesses every word shall be established."

Of the want of the cultivation of a taste for good literature very little need be said.

When such papers as the "Saturday Night," "Boys of New York," "New York Ledger," in which stories are written by the yard, have a weekly circulation running up into the thousands. When such papers as the "Police Gazette" and "News" find a place upon so many public tables. When our daily papers are made up mainly of records of crime. And when we remember that underneath the surface, passed in secret from hand to hand, are thousands upon thousands of scarlet books and pamphlets, we feel that there must be united effort of all good people toward better things.

Surely we, as teachers, must have a hand in this work. Shall it be ours to root out the *vile* and *trashy*, and, by cultivating a taste for the pure and strong and good, supplant it by what will make our boys and girls better members of society, more cultured in their tastes, and purer in their lives?

So much for the *want*. Who denies the worth? Surely the lasting glory of a nation is in its letters. Athens, the seat of learning, lives, while Tyre and Carthage and Palmyra, centers of the ancient world of commerce, are seldom thought of or spoken of.

Who remembers Rome as the home of the Cæsars or the mother of modern civilization? Who does not remember Rome as the home of a magnificent literature which has enriched and embellished every known language and is still the "light of the learned world"?

Great thoughts live. From misty antiquity, past cities long since lost sight of, vast tribes long since forgotten, from the pens of authors who cannot now be named, come some of our wisest and sweetest sayings. The poems of Anacreon and Sappho, the precepts of Zoroaster and Abraham still survive, indestructible and imperishable.

We speak of the age of Dante, careless of what Julius or Nicholas or Gregory occupied the papal throne. We forget the *king*. We remember the *poet*. Edward III.—who thinks or cares for him? but Chaucer we know and love. Who remembers the prince Goethe served or the lord protector whose secretary Milton was?

Anne and Elizabeth form but the background from which is reflected the brilliant dramatists and the elegant essayists of their time.

Who speaks of the Georges or Jameses or Williams? It is the age of Scott, of Byron, of Wordsworth. The age of Carlyle, Macaulay, and Dickens, of Thackeray and Tennyson. While in our own loved land, long after we shall have forgotten the names of

Blaine or Cleveland, those of Lowell, Longfellow, Whittier, Bryant and Holmes, Emerson, Irving, and Hawthorne will be forever green in the memory.

The real life of a people is preserved in its literature. Inner life and deepest history and philosophy voice itself there.

Through the literature of a people we come in contact with that which is strongest and purest in thought, in word, in deed.

The noblest work of the noblest minds finds record here. By it we may make friends with the strongest intellects, the keenest wits, the most brilliant geniuses, the finest artists of all ages.

Who shall say that in this contact we shall not be inspired and quickened in our moral and intellectual lives?

In the close connections and the most logical arrangement of thought which examples of literature afford, what opportunities of developing the reasoning faculties.

In the creations of imagery and fancy which have fallen like crystal dew drops from the pens of our authors, what culture to the imagination may be afforded. Are we artists? Where can we look for finer ideas of form and proportion and harmonious blending of lines and surfaces and colors than in some of the vivid word-pictures of Ruskin? Where such delicate shading or exquisite touches as in the works of Hawthorne? There are high lights everywhere. Charles Lamb from the shadow of a great sorrow sent forth brilliant flashes which convulsed the world with laughter. Robbie Burns with the curse of the "Raven" resting upon him, fairly flooded the world with light.

What radiance from the dungeon cell of Bunyan, and from the dark confinement of Milton's soul came forth the

> "Undisturbed song of sweet repose,
> Aye sung before the sapphire throne to him who sits thereon."

The literature of the world touches all phases of life. All philosophy, all science, all art, everything which touches life and action is reflected from the pages of our books.

Since these things are so, who will deny the worth of literature, or the necessity for cultivating a taste, especially among the young, for that which is best in the world of letters? Who will deny that life will be made sweeter and purer, that moral tone will be elevated and our children led Godward by coming in contact with and engrafting into the thought and life the masterpieces of master minds?

For all along the line in literature we may see if we but look "The little silver shiver from the ripple of the river, caught from the light that knows no night, forever and forever."

What shall be the means employed to educate the taste in this direction?

Let me, in the first place, heartily and unreservedly endorse what has been said in the paper under consideration.

There should be critical study of masterpieces. This should include the careful study of words as to their derivation, history and definition; of sentences as to their kind, formation and interpretation; of figures of speech, as to their fitness and beauty; of historical and literary references; of fine points of synthesis and analysis.

Authors should be studied as to their style and attractiveness, as to the unity of thought and arrangement of expression and ideas, as to their fitness for the work they undertake, and their influence upon the literature and life of the age in which they live. All this should receive careful attention, but it seems to me that much preliminary work must be done with the pupils before they can be brought to the successful prosecution of this critical work.

Will it be out of place in me or altogether profitless to you if I suggest a few things of a very elementary sort which have been put to a practical and successful test in some of our schools?

It has been said that "If one flower be clearly pictured in the memory, that one serves to recall the ramble and its pleasures," and this brings us to the consideration of the "memory flowers" so much used in our schools and homes at the present day. I know of one home where the children and parents separate for the night by repeating a gem from some standard author. I know of one primary school in our State where children have memorized over seventy selections in one term. I know of one mother who listened for an hour to choice thoughts while the little ones tested themselves as to who could repeat the greatest number. Did the little ones fall asleep and say them over in their dreams? Who knows? Many of these the children will never forget, and who can estimate the value they will be in shaping life and in forming a correct literary taste. These gems become "seed thoughts," and, as we proceed from the known to the unknown in this as in other studies, create a desire which in time, as the child matures, will lead him to the consideration of the entire masterpiece from which the selection is taken.

In connection with this work why not teach the children something about the authors, their personal appearance, home and home life, family, habits, etc. While I am in hearty sympathy with the idea that in the past too much time has been consumed with the authors rather than their works, yet I do believe that there is danger of going to the other extreme.

That Longfellow loved children has made more than one child love the poet and seek to learn what he said. That Coleridge belonged to the "awkward squad." That Keats performed most of his literary work between the ages of twenty-one and twenty-four. That Johnson had peculiarities and touched all the fence posts as he walked along the street. That Pope was called the "wicked wasp of Twickenham." That Scott by his own unaided pen paid the debt of half a million dollars from motives of pure honesty, and that Goldsmith was for years a common tramp.

All such facts draw and hold a delighted attention which paves the way to a more critical study of English authors. Then, too, I have found it well to group literary characters, not alone as historians, poets, or novelists, but about a common center as friends. What a happy family may be made of the authors of Cambridge or Concord in our own country, and what child will not give attention while we speak of the Lake poets in their homes about West Cumberland? There, too, how much can be done along the line of regular work in all studies by the wise and discriminating teachers.

In the use of the reading books, how much better to read all the articles by our authors, with wise references and suggestions, than to follow the old page by page plan. This may be supplemented by other poems and prose selections, brought into the class by pupils, and by a wise course of supplementary reading of classics.

In this connection let me echo a thought of another (book publishers please take notice), that the time will come in the near future when a series of classics for children, with carefully prepared language lessons in connection, will supplant the present system of patchwork text books in reading for our grammar schools and possibly for the higher grades of our primary departments. How much geography is found in such little poems as this:

> Great, wide, beautiful, wonderful world,
> With the wonderful water around you curled,
> And the wonderful grass upon your breast.
> World, you are beautifully dressed.

The wonderful air is over me,
And the wonderful wind is shaking the tree;
It walks on the water and whirls the mills,
And talks to itself on the tops of the hills.

You, friendly earth! how far do you go,
With the wheat fields that nod and the rivers that flow?
With cities and gardens and cliffs and isles,
And people upon you for thousands of miles.

Ah, you are so great, and I am so small,
I tremble to think of you, world, at all;
And yet when I said my prayers to-day
A whisper inside me seemed to say:
"You are more than the earth, though you are such a dot,
You can love and think, and the earth cannot."

Where can we find words to give a child such an idea of a brook as in Tennyson's poem—

I steal by lawns and grassy plots,
I slide by hazel covers;
I move the sweet forget-me-nots
That grow for happy lovers.

I slip, I slide, I gleam, I glance,
Among my skimming swallows;
I make the netted sunbeam dance
Against my sandy shallows.

I murmur under moon and stars,
In brambly wildernesses;
I linger by my shingly bars,
I loiter round my cresses.

And out again I curve and flow
To join the brimming river,
For men may come and men may go,
But I go on forever.

Or perhaps better still the "Cascade" or "Cataract of Lodore." What a beautiful picture of a lake is this from the pen of Goethe:

"Over the waters are blinking
Many a thousand star;
Gentle mists are drinking
Round the horizon afar.
Round the shady creek lightly
Morning zephyrs awake,
And the ripened fruit brightly
Mirrors itself in the lake."

What an impressive little sentence is this to be used in connection with the definition of an isthmus: "On over the isthmus out into the tide."

Who would speak of the desert without giving that fine poem of Pringle's: "Afar in the desert I love to ride"? Who speak of an island without saying that masterpiece, "The Purple Island"?

Attention may be called to Childe Harold at every step of European geography.

When Spain is the lesson have the children read "The Maid of Saragossa," and interpret by Napier's "Peninsula War" that line "Foiled by a woman's hand before a

battered wall." Coleridge's "Above me are the Alps" will render any lesson on Switzerland more impressive. What a picture of Venice is this from Childe Harold,—

"I stood at Venice on the Bridge of Sighs,
A palace and a prison on each hand,
I saw from out the wave her structures rise,
As from the stroke of the enchanter's wand,
A thousand years their cloudy wings expand
Around me, and a dying glory smiles
O'er the far times where many a subject land
Look'd to the winged lion's marble piles,
Where Venice sate in state, throned on her hundred isles."

Does not this beautiful word picture of a wonderful city create in you a desire to study the entire poem? A snatch from the Rhine in the same masterpiece, or in Longfellow's "Hyperion," will create a like desire.

What like Mazeppa could represent the vastness of a Russian steppe? How the "Pipes of Lucknow" speak for Indian scenes, and what a picture of this country in its "season of sadness," in these lines (from the pen of Mrs. Judson):

"The wild southwest moon soon has risen
On broad gray wings of gloom."

Who can estimate the value of this kind of work in helping to form a fine literary taste. I have followed at length this one subject as a sort of illustration. The same kind of work may be done in connection with other studies.

What an opportunity in connection with history. Almost every poet has sung of Rome, and almost every recorded historical fact has its glory in song. In Zoölogy there is the poetry and prose of life. In Botany "The meanest flower that grows can give thoughts that do often lie too deep for tears." The sciences, if taught from nature, too, may be embellished. The "music of the spheres" has been a suggestion to call forth poetic powers of the writers of all ages. Some of these have been the admiration of the literary world. Young people are always interested in and delighted with them. Listen to the song of the sun—

"The laughing Sun romped through the world,
Shaking its long locks drenched with gold."

Some of the most wonderful creations of the Blind Bard were suggested by the stars, and in no way can we call attention to them in so forceful a manner as by the same means.

So at every step from primary to High School our literature may be woven into the life of the child and thus will the taste be cultivated which in its nice discriminations will throw out as unworthy and worthless anything which is low or transient.

You will bear with me a moment while I carry this line of thought one step further. Not only in the studies but at all times may the wise director engraft the beautiful and noble thoughts of our authors. A reference to a book here, a word about a poem there will send the pupil on a delightful journey through an entire book or masterpiece.

On a snowy morning when clouds are full of feathery crystals and when the children come from play with cheeks glowing and snow-covered garments why not give them word pictures from Whittier's "Snow Bound" or Bryant's "Snow Shower," or when

dark clouds gather about you and your little flock and the rain-drops fall thick and fast how suggestive will be a concert recitation of Longfellow's famous poem "The Rainy Day."

Has some fair child on a summer morning decked your desk with God's sweet flower blessings, "Thou stars of earth, thou golden flowers." How appropriate an extract from Ruskin or a song from Wordsworth.

And so I might go on, but perhaps enough has been said by way of suggestion and lest I weary you I will begin to look toward the end. Let me say that we cannot begin this work too early in the child's life. It was a little four year old who walking out with me one starry evening pointed to a bright star and said "Night dropped her sable curtain down and pinned it with a star." We can interest little ones with pictures of the authors and their homes. We can tell them stories about the great ones who with pen and work have shaped the thought of the age. We can teach them to love the beautiful pearls which have fallen here and there along the line of masterpieces, and then when they are a little older we can have them write out the Guide Analysis of poems, and the story in prose. We can set apart an hour a week in our schools for the verbal reviews of the library books which pupils draw and read. These and a hundred other things we may do, and thus step by step almost unconsciously will the taste be formed, and the good work carried on which will lead the mind in time to study in a most critical way that which is most strong and delicate and beautiful in literature. There is a work for us to do along this line, fellow teachers. Let us not shrink from it nor fear for lack of material with which to work. There is no limit to what can be accomplished and the means at hand is abundant.

"The kingdom of my father," said Cyrus to the Ten Thousand, "extends from the south where men cannot live on account of the heat to the north where men cannot live on account of the cold, so that I do not fear this that I may not have what I may give to my friends but that my friends may not be enough on whom to bestow them."

President L. R. Fiske, of Albion college, said:

Mr. President,—I am in hearty sympathy generally with the positions taken in the paper, and thus far in the discussion. The worth of good literature is apparent. That there is a sad lack of it as judged by what is commonly read by the young, is also evident. The vital question, therefore, is this, how can a taste for good literature be more widely cultivated? The Sabbath school and the public school sustain a very close relation to this subject. I think the management of our Sunday school literature is justly liable to severe criticism. The selections of books are very largely objectionable. These books are not vicious, but in many cases they are pernicious in that they foster a taste for reading that is mentally relaxing, that unfits the boy or girl for serious intellectual work. Aside from giving advice, the teacher in the public school can do but little in determining the choice of books to be read. If each school had a well-chosen library from which the pupils made their selection of books, such a supervision could be exercised as would give promise of desirable results. Much is said—and I do not know what else can be said—in favor of supplying wholesome literature that is attractive. It seems to be purely a question of attractiveness. And in this, as a rule, the worse has the advantage of the better. Biography, if genuine, is not as exciting as fiction. Science cannot be clothed in as showy a dress as scenes in romance. And in the endeavor to get the attention of the young, and engage it in lines of thought which are instructive, is there not danger that they will gain the mental habit of being borne

along by the enchanting imagery instead of acquiring a habit of research for truth's sake? The great problem is how, in connection with the attractiveness of literature that will draw in the right direction, there can be developed a subjective power and mental trend to grapple the hardest problems of thought, and become a hero in thinking. That which is needed is that the student shall become a self-reliant vigorous thinker. The question awaits solution.

AN INQUIRY ABOUT SOME PEDAGOGIC PRINCIPLES.

BY PROF. DANIEL PUTNAM, STATE NORMAL SCHOOL.

Profitable discussion pre-supposes several conditions. Among these are an honest desire to discover truth, freedom from the repressing weight of mere authority, and an agreement as to the extent and limitations of the propositions under consideration, and as to the meaning of terms. In this presence it will be only courteous to pre-suppose a hearty love of truth, and the temper of the times is a sufficient guaranty against an undue deference for authority. It will hardly be safe to affirm agreement as to terms and propositions. A very cursory reading of the popular educational publications of the day impresses one with a conviction, almost painful, that the words "pedagogic principles" do not have the same meaning in the minds of different writers, and the still more painful conviction that in the minds of some quite prolific authors they have no definite and clearly limited meaning. Harm has come, and is daily coming, to earnest but inexperienced teachers from this diverse, careless, and confusing use of terms. They are taught that principles are safe guides, unerring, infallible. They are told to follow where principles lead and the best of results will be sure. Somebody has very aptly described "a confidence born of limited knowledge." The confidence reposed in many of the so-called "pedagogic principles" has, one may fear, a kindred origin. It is little less than wanton cruelty to disturb the restful faith of childhood, or even to dispel that ignorance which, if not itself bliss, is, in some cases, the only possible substitute. But truth has rights which are entitled to a measure of respect.

Through carelessness or lack of discrimination general principles of the highest value and importance are confounded with petty maxims; and insignificant maxims are elevated to the high rank of universal laws. To illustrate this I select a few from a long list of "principles" found in very excellent publications issued for the instruction of young teachers.

1. "Activity is a law of childhood.
2. "Cultivate the faculties in their natural order—first form the mind, then furnish it.
3. "Begin with the senses, and never tell a child what he can discover for himself.
4. "Let every lesson have a point, either immediate or remote.

5. "Develop the idea, then give the term.

6. "Proceed from the known to the unknown—from the particular to the general—from the concrete to the abstract—from the simple to the difficult.

7. "First synthesis, then analysis—not the order of the subject, but the order of nature."

Some of these, as the first and the first parts of the second and third, state by implication rather than in regular form, general principles; others, as the fourth, fifth and sixth are simply maxims, or subordinate principles of greater or less practical value, and of wider or narrower application; a few, as the latter parts of the second and third and the whole of the seventh, may very easily become misleading and consequently positively mischievous. Under existing conditions of educational theories and practices we shall, therefore, do ourselves valuable service by fixing at least within our own minds some tolerably well defined "metes and bounds" within which so-called "pedagogic principles" shall be confined, so that they shall not mean everything or anything or nothing, as the case may be. In the present unsatisfactory state of educational science it would be almost unpardonable presumption if one should even seem to suppose himself able to solve the psychical problems and to answer the practical questions involved in the work here suggested. The necessary brevity of an essay will compel the use of a somewhat dogmatic style of treatment and speech. Let it be distinctly understood, however, that all conclusions here reached are only of a preliminary character, subject to revision whenever the progress of pedagogical science shall afford clearer light and fuller knowledge.

The science of pedagogics, so far as it has been formulated, is composed mainly of deductions from psychology, the general science of mind, and from the auxiliary sciences of logic and ethics. Of necessity it lays physiology under tribute, and, to a less degree, æsthetics. Some of its principles may be reached, or at least verified, by induction.

Every science seeks first to discover the phenomena, the facts, within its province. It then proceeds to examine, to analyze and classify these phenomena. When the discoveries and groupings have been measurably completed, so that the phenomena begin to assume logical form and consistency, the broadest possible affirmations are made concerning them and concerning the relations existing between them. These affirmations constitute the fundamental truths or first principles of the science; and those which affirm the relations of different phenomena and of different classes of phenomena to each other are usually called laws. The terms principles and laws are often employed interchangeably, but always to denote very general, if not universal truths.

Such principles and laws of mind formulated by psychology constitute, as just stated, the basis of the science of education Subordinate truths and laws of limited application may be deduced from the fundamental laws, but careful distinction in all discussions should be made between the primary and fundamental and the secondary and subordinate. The lack of such discrimination has brought some just criticism upon certain educational principles so-called, which are of practical value when applied within their own proper province, but which are worthless or positively harmful when carried beyond their natural limits. It might be of service in preventing confusion, if the term principles were confined to the far-reaching general laws, and the term maxims were employed to denote those of limited application. Established general laws of mind are few; maxims are abundant.

Among the few general truths from which pedagogic laws are deducible is that of *the regularly progressive development of the three typical forms of intellectual activity.* The first years of childhood are characterized by the special activity of the senses through which the mind becomes possessed of the raw material of knowledge. A little later the representative and reproductive faculties, the memory and imagination, exhibit peculiar vigor. By these the products of sense-perception are grasped, as it were, and held ready for use. And, finally, orderly and fruitful thinking comes under the names of conception and judgment and reason. It would be a grevious error to suppose that the senses only are active in infancy and childhood. When the first two successive sensations are felt, compared and discriminated, memory and judgment begin to act. It remains true, however, that the predominating activities of the mind succeed each other in the order named, and that from this fact important pedagogic principles are naturally derived. At each successive stage of development teaching in its type and character, must coform itself to the mental condition of the pupil.

Another fundamental and fruitful truth is that *exercise, in form of self-activity, is a primary condition of all development and training.*

A third truth, equally comprehensive and equally prolific of educational inferences and deductions, is that *the materials of knowledge, found in the various branches of study, properly presented, either to the senses or to the representative powers, will always excite this necessary activity.*

These three principles make us acquainted with the order, the condition, and the means of growth. The work of the school-room must take these into account and fashion itself according to their demands. From these may be derived maxims, or principles of limited application for elementary teaching and also for higher instruction. The following, among others, have been formulated for elementary teaching:

1. "Observation before reasoning;"
2. "The concrete before the abstract; sense-knowledge before thought-knowledge;"
3. "Facts before definitions or principles;"
4. "Processes before rules;"
5. "From the particular to the general;"
6. "Things before words; the thing signified before the sign;"

Similar maxims may be easily put in form for more advanced instruction. But, in both cases, these and kindred maxims merely indicate the predominant characteristics of the work to be done and of the methods to be employed. The child observes much more than he reasons; he deals with the concrete more than with the abstract; his sense-knowledge is greatly in advance of his thought-knowledge; he masters particular objects more readily than classes of objects. Nevertheless he reasons, and thinks, and gets notions of classes after an imperfect and crude fashion. He proceeds, for the most part, inductively, but does not hesitate to try his hand at deduction. The teacher of advanced students never entirely discards observation, nor ceases to employ the concrete; he continues to use, in some branches of study, sense-knowledge very largely, and to proceed, for a time, by the method of induction. The truth needs to be more distinctly recognized that no broad line of separation can be drawn between elementary and advanced principles and methods of instruction. The differences between them are marked and are of the highest importance, but they are mainly, if not altogether, differ-

ences of degree rather than of kind. No other conclusion is possible unless the mind of the child and the mind of the man are unlike in nature.

We have not yet, however, reached those truths of psychology from which the most definite and practical principles of pedagogy are deduced. The general laws of mind of which I have spoken indicate certain differences in respect to the raw material of knowledge, if this form of expression is allowable, to be used in the successive stages of the child's development. At one period this material may consist chiefly of the concrete, the particular, of facts and processes; at another mostly of the abstract, the general, of laws and principles. They help to determine the matter to be presented and the order of time in which the presentation shall be made, rather than the manner of conducting the process or of dealing with the mental activities which the presence of material of observation or thought has excited.

In order to formulate general and definite laws for the proper presentation of subjects of instruction to the mind of the learner, at any stage of his progress, it is necessary to understand clearly those peculiar and primary modes of mental activity which Mr. Bain calls "The great functions of the intellect," and Mr. Sully, "The fundamental intellectual operations" or processes. Those terms are employed, I suppose, to designate a few forms of psychical action into which all the apparently multifarious activities of the soul may be resolved "in an ultimate analysis." They appear in all conscious mental phenomena, alike in perception and in the higher processes of thought. They are common to infancy and maturity. They characterize, with only differences of degree and distinctness, the first mental activities of the child and the latest and profoundest generalizations of the philosopher. If this be true, the possibility of a psychology peculiar to childhood disappears, and a good knowledge of environment and of general psychical laws will enable us to estimate, with practical accuracy, both the character and amount of "the contents of children's minds."

Granting the existence of these few fundamental, all-pervading activities of soul, we may anticipate, at no distant day, the formulation of a very limited number of general "pedagogical principles" fairly easy of comprehension and not difficult of application. In this direction, probably, lies the path of educational progress out of the present "confused condition of partial apprehension" into the happy state of clear and complete "comprehension."

I am not unaware of the danger involved in presuming to question the deliverances of recognized authorities, but intelligent consensus of opinion can be reached only through the fullest freedom of discussion. It will be permitted, therefore, to entertain, with some diffidence, a doubt whether Mr. Bain and Mr. Sully have given us the best possible enumeration and description of these fundamental psychical activities. It may be that the doubt arises from the nomenclature employed rather than from the ideas which they intend to express. Mr. Bain makes these "functions" or activities three, discrimination, agreement, and retentiveness. Mr. Sully agrees with Mr. Bain in respect to discrimination and agreement, which he names assimilation, but questions the propriety of putting retentiveness into the same category. In this he seems to me to be evidently in the right. Retentiveness, using the term with its common signification, involves no conscious form of mental activity, but is rather, as Mr. Sully says, a condition of continuing to know, or, perhaps, of knowing at all. It is apart from the immediate purpose of this paper to enter further into this discussion. It will be

possible, at this time, only to state, in a brief and dogmatic way, my own present conclusions in respect to these fundamental activities, holding the conclusions subject to future and liberal revision.

1. First, in what form or condition does the mind receive the materials upon which it exercises its activities? Is there a general law in respect to this? a law holding equally good for the child and the man? holding equally in respect to objects presented through the senses and in respect to subjects which are addressed to the powers of imagination and conception? If there be such a law, then from it may be drawn a "pedagogic principle" of a general character and of universal application.

Hamilton says: "Perception commences with masses." The object to which attention is directed may be large or small, a whole man or his face, or his eye, or the pupil of his eye, but whether large or small it is the whole mass of something. The resulting notion must be a confused and indefinite one, composed of an aggregation of precepts, many of them partial and imperfect. "In proportion as the object is larger and more complex, the attention can of course be less applied to any part of it, and consequently our knowledge of it in detail will be vaguer and more imperfect."

This truth is too obvious to justify extend d remark. Consider for one moment the actual condition of a young child introduced for the first time to the world as it is. The opening senses are instantly and simultaneously affected by a confused multitude of impressions. Through touch and sight and hearing a whole crowd of external objects and influences force themselves, at the same instant, upon the attention. The mind must be filled with the most various sensations mingled together in the utmost disorder. Nature, if one may employ this much abused term to denote the sum of all surrounding conditions and circumstances, always presents itself and its boundless variety of material of knowledge in this form of confused and unclassified masses or aggregates.

It would not be difficult to show that the same fundamental form of activity manifests itself in the action of all the so called faculties through which the mind lays hold upon knowledge. But the narrow limits of a brief essay forbid us to enter upon a field so broad and yet so attractive. It only remains, under this head, to say, that since the mind naturally grasps objects and subjects of knowledge and thought in the form of aggregates of wholes, they should be so presented by the teacher. This appears to me to be the first fundamental and general principle of pedagogy. It may easily be misunderstood and misapplied, and made to seem absurd and even worthy of ridicule. It would require a whole chapter to illustrate its applications and its apparent though not real limitations.

2. The second inquiry is whether, having received these aggregates, the mind proceeds to deal with them in a way essentially the same always and everywhere, so that here also a general law can be formulated. Is there a mode of mental activity so universal that it can properly be regarded as a "function of intellect," or a "fundamental operation" of the soul?

Hamilton says, "Having first acquired a comprehensive knowledge of anything as a whole, we can descend to its several parts, consider these both in themselves, and in relation to each other, and to the whole of which they are constituents, and thus attain to a complete and articulate knowledge of the object. We decompose, and then we recompose. But in this we always proceed first by decomposition or analysis."

"Now, this is what appears to me to take place with children: They first know, that is, they first cognize the things and persons presented to them as wholes. But wholes of the same kind, if we do not descend to their parts, afford us no difference, no mark by which we can discriminate the one from the other." This descending from the whole to parts, from the aggregate to its elements, is simply a process of discrimination, of sorting out and placing together things which are alike, and placing apart things which are unlike. With all due deference to the authority of Mr. Bain, and of those who follow him, I am compelled to the conclusion that there is only one fundamental operation of intellect here. The discovery of differences and of likenesses must go on together; they are only parts of one process. This fundamental, universal physical activity is properly named "discrimination."

This, then, must be accepted as another general "pedagogical principle," that the mind, in elaborating or thinking "proceeds from aggregates to elements," "from wholes to parts." This necessarily involves a progress from "the confused to the definite," from the shadowy whole of first perception or representation to the clearly bounded whole of recomposition. This method appears to be common alike to the early and only half conscious mental efforts of the young child, and to the most productive efforts of the most mature thinker.

3. There is one other "function," or "fundamental perception" of intellect, the importance of which is sufficiently recognized in a general way, but which has not yet been quite clearly described or appropriately named. It is nearly related in character to the "retentiveness" of Mr. Bain, and makes possible that form of mental activity commonly called memory. It is not retentiveness or memory, but the ever active "function" of mind which gives birth to these faculties, the underlying law of which they are the most obvious manifestations.

Attending all the mental activities by which knowledge is acquired and digested, there goes on a process of adhesion, or fastening together of ideas, so that, in the future, whenever one idea appears in consciousness, another or many others also appear. This process takes place equally while we are perceiving, conceiving, imagining, or judging, and is, for the most part, an unconscious one. The so-called "laws of association" are merely statements of the apparently different forms in which this fundamental operation manifests itself, and of conditions which seem to render its action more or less effective. Hamilton has discussed these manifestations with masterly acuteness of discrimination and analysis.

Provisionally this fundamental operation might be named adhesiveness. It is not the purpose of this paper to discuss further the nature of this "fundamental operation" of mind, or even to attempt to prove the existence of such an operation. Its existence is simply assumed, and its importance affirmed. It remains for some student of psychology and of pedagogics to formulate principles of pedagogy which shall fully recognize the importance of this underlying principle, and which shall be of practical value to teachers in the presentation and treatment of topics of study.

Our discussion thus far has been general in its character, too general, I fear, to command the attention and interest to which the subject, though not its present treatment, is entitled. The remaining time allotted me will be used in an attempt to illustrate how the mind naturally "descends from

aggregates to elements,'' in passing from a state of "confused apprehension" to one of "definite comprehension," or to employ more commonplace and more intelligible terms, in attaining clear and definite knowledge of any matter presented to it. The subject matter, in the illustration, is purposely addressed to the reproductive and representative powers rather than to the perceptive faculties. The apparent difficulty of the process is increased by an increased complexity in the mental aggregate, but a much wider field of observation is thereby opened, and the value of the illustration, if it shall have a value, will be correspondingly increased. An opportunity will be afforded to refer to the previously mentioned "pedagogical principles," and, incidentally, perhaps, to some "educational maxims"

I read a few lines from book III. of Paradise Lost:

"Thus with the year
Seasons return; but not to me returns
Day, or the sweet approach of even, or morn,
Or sight of vernal bloom, or summer's rose,
Or flocks, or herds, or human face divine;
But cloud instead and ever-during dark
Surround me, from the cheerful ways of men
Cut off, and for the book of knowledge fair
Presented with a universal blank
Of nature's works, to me expunged and rased
And wisdom at one entrance quite shut out."

The process of reading these lines is apparently a very simple one. The eye recognizes certain characters called letters, grouped into words so-called, and these again grouped into sentences. The vocal organs utter certain sounds and combinations of sounds which these characters are said to represent. We are so familiar with this that, if it ever seemed wonderful, as it may have done in early childhood, it appears now very commonplace. Yet the simultaneous activity of the complicated apparatus of vision, of that strange power, the will, and of all the muscles whose marvelously rapid and varying movements are necessary to the production of articulate sounds, presents an aggregate of phenomena by no means easy to comprehend or even to number. These phenomena are partly physiological and partly psychological, and they suggest problems which science has thus far been quite unable to solve.

The most wonderful elements in this collection of phenomena still remain to be considered. As I read or listen I am conscious of a mingled and seemingly confused mass of purely psychical activities, and of products of these activities. The mind is crowded full of various kinds of feelings, images, ideas, notions, called up into mental view by the sight of the characters on the printed page, or by the uttered sounds of the reader. The fact is so familiar that its strangeness has ceased to excite curiosity or to provoke attention. How have these lifeless characters, these mere black marks impressed upon paper, come to have power to excite the soul to such vigorous and multifarious activities, to kindle the fires of emotion, to paint pictures of visible things not immedately present, and to create notions of things invisible and intangible. The marvels of magic and necromancy are more than equaled here without a conscious taxing of faith or an appeal to unreasoning

credulity. Aladdin with his lamp never did anything more full of surprise and wonder.

In some way words and things, words and the images and ideas of things, words and general and abstract notions, have become so united, so much parts of one whole, that the sight or the sound of the words instantly summons up into mental vision crowds of images and ideas and notions of things visible and invisible to corporeal seeing. We make a statement of this fact and call it a law of mind; and, with something of self-satisfaction, appear to suppose we have fathomed the mystery and solved the problem of the union of signs and the things signified, of symbols and the things which they symbolize. The thing which we have really done is to write down a truth taught by consciousness and observation and reading, and to dignify it with a name. It is not matter of reproach or blame that we have gone no further in this direction. For just at this point we reach the limit of absolute knowledge. Beyond lies the realm of conjecture and supposition and theory, where imagination and fancy and dogmatism range at will. This territory is free and open to exploration and investigation.

This wonderful result has come to pass through that primary "function of intellect," or "fundamental operation" of mind which has been named "adhesiveness." It is worthy of remark in passing that upon the fact that external signs and symbols addressed to sight, hearing, and touch, may become so inseparably bound up with psychical states and activities into aggregates that the presence of any portion of the whole will usually cause the immediate reproduction of all the other parts, depends the possibility of the formation of artificial languages, if not also the existence of what is called natural language. To this adhesive function of mind more than to any other power the young child is indebted for his early acquisitions in knowledge. For a long while the child is doing little else than supplying himself with sound and sight symbols of the objects, acts and qualities which he observes. He is continually "seeking for signs." Learning to read is only a somewhat systematic extension of this process of fastening together symbols and mental activities and the products of these activities.

By this most wonderful law of adhesion the sight or sound of the name John Milton instantly pictures in the "presence chamber" of the soul of one who is familiar with his life and works, a blind old man with his daughters sitting beside him, or else it opens to the mental vision the pages of that immortal poem from which the beautiful lines I have read are taken

Let us continue the analysis of the complex aggregate of thought and feelings called up into consciousness by the reading. The unpracticed student of psychical phenomena may incline to affirm that the only intellectual activity going on, as he reads or listens, is the formation of new and original mental images and notions of the objects and acts named, in the order in which they are presented. This is, apparently, a single and simple process, not unaptly compared to the unrolling of a panoramic picture, or still better to the easier effort of gazing upon such a painting when unrolled by another. This mistaken affirmation will be withdrawn after a moment's reflection. The mental activity, though familiar and easy, is still quite complex in its character. The words are merely signs and symbols, and they are signs of only those things which have been previously learned and associated with them. While the words are observed or uttered the mind can picture nothing absolutely new, except selections and combinations, unless these signs are

loaded with additional meaning by explanations and illustrations in connection with their presentation. This process of addition is constantly, though often unconsciously, going on in the case of children, but in mature life it is much less frequent.

As the reading begins and proceeds the first mental act, after the preparatory and accompanying one of attention, is that of reproduction. As each word, or combination of words, is uttered the associated image, or notion, presents itself in consciousness. If the association is perfect the reproduction is easy and instantaneous; if imperfect, the reproduction is accompanied by a conscious and sometimes painful effort. Representation, that is, the arranging into right form and order of the reproduced material, goes on simultaneously with the reproduction. The two processes, though separable in thought, are in fact inseparable, and may be regarded as one.

Close inner observation reveals still another attending form of mental activity. As the representations come into view, there is at once an affirmation or denial that they are accurate and adequate; that is, that they answer fully and in all respects to the recollection of the associated objects, images, and ideas. This act of affirmation or denial involves comparison, and is a function of the judgment.

This whole complex process of reproduction, representation, and recognition is generally assigned, without examination or separation, to that aggregation of activities known as memory.

Directing our attention now to these recovered products of mental activities, we discover marked and important differences between them; although they may all be grouped together under the somewhat indefinite and disputed name of "concepts." Most of them are representatives of objects of perception through the sense of sight. Such representations only can, without doing violence to the ordinary use of language, be called "images" or pictures.

A little closer internal observation discloses the fact that we can form distinct and sharply defined "images" of individual objects only, or of a group of individual objects. Representations of objects indicated by common and abstract terms, such as bloom, rose, face, cheerful, fair, etc., may be called "notions." It will be discovered that whenever an effort is made to fashion a distinct mental image of that which is expressed by the general term "rose," the representation loses its general character and becomes individualized; that is, takes the form of some particular rose. The same will be found true of the representations associated with all common names. The notions symbolized by purely abstract terms, such as sweet, can not be individualized. They refuse to assume definite form unless made concrete.

It is impracticable within assigned limits to carry further this process of "descending from aggregates to elements." We should finally in this case, as in every other, reach such a degree of definiteness, and only such a degree, as our previous acquisition and association of ideas render possible, and the character of the recomposed whole would be determined by the character of the elements reached in the analysis.

In the example here employed, I have had two objects in view: First, to afford an opportunity of observing how the three great fundamental operations of intellect enter into all the various activities of mind, and how, of necessity, we are compelled to "descend from aggregates to elements" in reaching definite knowledge; and, second, to suggest one of the most fruitful

and satisfactory modes of pursuing the study of psychology by those who already have some acquaintance with the subject.

DISCUSSION.

In connection with the discussion of the paper "Some Pedagogic Principles and Their Application," President L. R. Fiske, of Albion College, said:

There are some exceedingly valuable suggestions in Prof. Putnam's paper. There is surely an order of mental operation in cognition which we must follow, and it is important that we clearly understand this order. Simple apprehension of the object first, special act of attention immediately following, this resulting in the analysis of the whole, and then the synthesis of parts restoring the whole, which whole at first was only *apprehended*, but is now understood, this is the order and the process of cognition.

I suppose that one of the special objects of the paper is to lay down principles which rightly applied would determine to a considerable extent the true order of work in our courses of study in schools and colleges. At first there must be more of the empirical and as years progress in study, and mental development increases, there will be relatively more of the rational and less of the empirical. At first the child learns principally facts, afterwards, in an increasing ratio, the explanation of facts. Hence, the kindergarten work for children—either in form or principle—but as years pass on, a continuous increase of the reflective. Early life is the best time in which to study language, especially for success in getting the vocabulary. It is also true that the study of nature should be commenced at as early a period as possible, for it is a great object lesson, and in childhood the senses are the principal medium of knowledge. Elementary science at the beginning, then science that is more comprehensive and profound, and this to be followed by the philosophy of the same, is an order clearly pointed out by the constitution of the human mind and our relations to the universe of truth. Teaching perverts, or at least is crippled in its work, unless it conforms to the laws of mind.

KINDERGARTEN WORK IN THE PRIMARY SCHOOL.

BY NINA C. VANDEWALKER, CALUMET.

Our knowledge of the nature of man determines the aim of life and of education; hence the recognition of man as an organism, subject to the laws of organic development, is a turning point in educational history.

Before man was looked upon in this light but little attention was paid to early education. Psychology and philosophy had occupied themselves with the grown man only. But growth is complete in the adult, hence he furnishes no clue to the principles of development. With the idea of growth, the child became the object of study, for in him lay the solution of a problem of great importance to the race.

The principles of growth as applied to the human being yielded but little fruit before the time of Pestalozzi; and by his recognition of the instincts of childhood as the basis on which education should rest, he laid the corner stone of modern educational science.

To gain a knowledge of the operations of mind development, Pestalozzi studied the laws of the physical system; and, as in the order of nature, exercise—the use of power acquired—is as necessary to complete development as the food which produces it, the same must be true of the growth of mind.

If education is, as it must be, the generation of power, the power itself must serve some purpose in the child's development, for nature wastes no force.

In the process of growth, then, Pestalozzi recognized two distinct phases: the receptive, that which concerns itself with nutrition; and the expressive, that which is concerned with exercise, action of some kind. The laws that govern the first of these were clearly enunciated by Pestalozzi. The true relation of the two, and the discovery of the laws on which the second is based, was reserved for his successor, Froebel.

The productive or creative phase of development occupied the greater share of Froebel's attention. He saw that in the history of the race, doing preceded knowing, and art, science; and he held that this order should be repeated in the individual; for doing gives the necessary and sure conditions of knowing.

He recognized also that doing has a higher office. Science is the outgrowth of art, but until the principles of science are understood, art is incomplete

and progress merely accidental. Doing gives knowledge of a certain kind, sense perception, the importance of which cannot be over estimated; but it is a knowledge that directs the mind upward to a higher knowledge—the recognition of laws and principles.

Is knowledge, then, the end and aim of life? Assuredly not, but rather a means to the ultimate end, action in harmony with recognized law.

These distinctions in the nature of activity Froebel kept clearly in mind. Through action comes knowledge, through knowledge action of a higher order, creative action.

The law of creative activity was the next object of Froebel's thought. He saw that the mind is first awakened by contrasts, *i. e.*, things opposite in qualities. Why should not the same law of contrasts govern the synthetic processes of mind? In the discovery of this, the law of opposites as the law of constructive activity, we have convincing proof of Froebel's deep insight into the soul of man; but in the invention of the gifts and occupations of the kindergarten we see the final expression of his genius.

That the activity of childhood should be utilized in his development, Froebel considered a fundamental truth; but this activity should be the spontaneous activity of play. Hence the means of educating the young child must satisfy the wants of his intellectual nature, and at the same time conform to all the laws of his being.

In the gifts we find the fundamental truths of nature embodied in logical sequence, and in such a way as to produce unmistakable impressions upon the consciousness of the child. His impulse to do, to analyze, is gratified, for the gifts by their character invite experiment and discovery. With these and with the occupation material he can express himself through his creations at every step, completing and fixing by synthesis the knowledge his analysis gave him.

The truth of Froebel's system is shown in the happiness it gives the child. There can be no contentment without activity, that is development of the faculties. Creative activity, through the concentration it requires, develops not only originality and self-reliance, but a moral stability, an inward collectiveness not otherwise attainable. But the moral benefit extends yet farther. Madam Von Buelow says: "By leaving a higher, a mental want unsatisfied, we cause a lower, a merely sensuous one to take its place."

If this is true, its converse must also be true—that the cultivation of the higher nature prevents the growth of the lower.

The old education concerned itself with the intellect only. The aim of the new is the development of the whole being, and upon this Pestalozzi laid great stress; but as his work pertained more particularly to the development of the intellectual, the receptive faculties, he has exerted a stronger influence upon the education of the present, which concerns itself still chiefly with intellectual culture, than has Froebel, though the latter represents the broader and more complete truth.

The world will never outgrow the principles of Pestalozzi, for they contain the essence of the later truth; yet if we read the signs of the times aright, the distinctive features of Froebel's system are destined to play the more important part in the education of the future.

That these principles should be more generally recognized is a conclusion to which we are rapidly tending; and this conclusion has been reached, not by a course of reasoning, but by a study of the results of a purely intellectual

development. Intellectual culture has, indeed, made us a nation of intelligent people, but it has not made us a skillful people, for our leading industries are in the hands of foreigners. Neither has it prevented national and individual corruption, and social evils of the gravest character. As long as labor is considered degrading, as long as rings govern instead of the people, and sharpness is considered a better recommendation than rectitude, there are still higher levels to reach.

The reaction against purely mental training, the feeling that character rather than knowledge should be the aim, and that the school should bear a closer relation to the work of life, is daily growing stronger, as is seen in the multiplication of technical and manual training schools, and the interest on the part of the public in the manual training question.

As a cause is illustrated in its effects, the kindergarten, and the educational principle it embodies, is more clearly comprehended after a study of the manual training problem. Says Chas. H. Ham, of Chicago: "As the child is father to the man, so the kindergarten is the father of the manual training school. The kindergarten comes first in order of development, and leads logically to it. The corner stone of both is object teaching. In both it is sought to generate power by dealing with actual things in connection with ideas."

Whether the kindergarten will gain from the narrower views of some of its new supporters is a question; but it will at least gain in the attention of a large class of people who would hardly have studied it on purely educational principles.

The influence of public opinion in favor of a more practical education is felt by all classes, and this awakening of public interest is bringing about the most excellent results. In the light of the kindergarten the people understand true education, and more than ever before do they demand higher aims and better methods in the schools.

The contrast between the work of the kindergarten and that of the ordinary primary school is so marked as to need no comment. The total neglect of sense culture; the non recognition of the child's desire to do; the failure to awaken the inner and better nature; and the almost exclusive attention to rote work and memory training; these are radical defects in the schools that the thinking public and the conscientious teacher recognize alike, and the very things in which the schools are lacking are the things on which the kindergarten lays the greatest stress. The interest in the subject on all sides, and the eagerness with which the kindergarten methods are being adopted prove beyond a doubt the dissatisfaction with the methods of the present and the recognition of the kindergarten as the remedy.

And who can estimate the effect upon the children in our schools, in the happiness and inspiration it would give them! Have you not felt discouraged, teachers, that you were feeding your little ones husks only, because you had no real food to give them?

The superintendent of the Milwaukee schools says in regard to this: "There are thousands of little children in our schools whose greatest need is nursery attendance, who sit waiting in constrained and unnatural positions, in narrow seats and ill-ventilated rooms, presumably doing grade work, but in reality waiting until they are mature enough in mind and body to begin with profit the work of instruction." To such the kindergarten work would be an incalculable blessing.

The superintendent of the Boston schools says also: "There is no doubt in my mind that our school system would gain much in efficiency and force if there were kindergartens in connection with every public school through which the children should be required to pass before entering the primary school. The teacher could then take them where the kindergarten left them and go right on. Much would be gained in this way, but more still would be gained by imbuing the teachers and the teaching in the lowest grades with the spirit and methods of the kindergarten. Our next step forward is to establish the kindergarten as a part of the system of public instruction, and to modify our methods accordingly."

This has already been the subject of experiment in several places with highly satisfactory results, and from present indications its final incorporation into the school system is but a matter of time.

"But," you say, "the kindergarten is an organic whole. Will not its unity and hence its value be destroyed by breaking this chain of connection?" Experience has not shown this to be the case, and by their adaptation to differing circumstances, the vital truth of the principles on which the kindergarten is based is more clearly demonstrated.

The question of incorporating the kindergarten into the public school is no easy one. The aims and methods of the two are in such striking contrast that one or the other, or both, will need to be materially modified before thep can unite to form a complete whole. Face to face with the problem we realize something of its difficulty, and at the outset we meet with this obstacle. Whether or not the primary school be preceded by a kindergarten, the ultimate success or failure of the work as a part of the school system must rest with the primary teachers. Are they as a class worthy of the trust, and if not, why not? Why do the first-class grammar and high school teachers outnumber the primary teachers of equal ability at least ten to one? Is it surprising that the best teachers are found in the higher grades, when the primary school is so often considered the lowest round in the professional ladder from which the teacher mounts upward as fast as circumstances will allow? There are many earnest, conscientious teachers who remain in the primary work in spite of this spirit from their love of the little ones, but we cannot hope for the best results in the primary grades, nor for the success of the kindergarten movement, until the primary work can secure and retain more of the best professional talent.

Without teachers of ability, the first condition of success is lacking. Another difficulty is found in the stress laid upon the time element in most courses of study. System is indispensable to success, but the real end of education should be a higher object than conformity to a system, no matter how excellent. Is not this real aim often lost sight of in the necessity of doing a certain amount of work in a given time?

As long as a teacher's success or failure is based upon the average of her class rather than upon the quality of her work, we will have cramming and not real education. It takes time to develope a child symmetrically, so that he may reach a given point without forcing, or straining one set of faculties at the expense of the others, a much longer time than the school supposes, but the teacher has ordinarily so little freedom that she has no choice but to continue the forcing process.

These and other difficulties faced and met, what then? Should we have the kindergarten as a whole, and if not, how much of it, and what part?

How much time shall we give to it, and what course shall we pursue? To what does it all tend, and are the results in proportion to the additional trouble and expense?

These are questions in the solution of which time and experience must come to our aid. That the kindergarten as a whole should, if possible, precede the kindergarten work in the school, no one will deny, but the former condition is not indispensable to the latter, in fact the necessity of the kindergarten work in the school is all the greater if there is not a kindergarten at the foundation.

There is much in the kindergarten that the school does not need and cannot use; and there is also much that is indispensable to its highest success, though the use to which the material is put will necessarily differ with the circumstances. As the child has gained the ideas which underlie the gifts before entering school, their chief objects, if used at all, is to form a basis for the classification of this loose, unsystematic knowledge. Of the synthetic process, the application of this knowledge through the occupations, the child knows nothing; and in this, the joy of creating, lies one source of the wonderful effect of the kindergarten upon the mind of the child. Hence the occupations are the most needed in the school, and they are also especially adapted to it, as furnishing an opportunity for work or play with an educative purpose, which, while conforming to law, is yet the free expression of the child's own thought. In this development of originality and independent thought on the part of the child lies one of the strongholds of the kindergarten system in the minds of the people.

The proportion of time given to the kindergarten work in the school must vary with the age and advancement of the pupils, and also with the skill of the teacher and the variety of the materials. The first few weeks of the primary work need to be given to it almost exclusively, and for the first year the time should be divided about equally between it and the regular school work. From that time on the school work proper will claim the greater share of the time. Do you say that the time is needed for other things? Rightly understood the kindergarten work economizes both time and mental force Nature has fixed a limit to the absorbing power of each set of faculties. As play, the kindergarten work serves a valuable purpose in relaxing the strain made upon the minds by the school work. But while this play rests one set of faculties, it at the same time develops another. By having alternate periods of kindergarten work and school work, the child's whole mental force is utilized without exhaustion, and it serves as a physical as well as an intellectual benefit. Besides these regular periods of kindergarten work, at which time it should be under the direction of the teacher as much as any recitation, much of the busy work may be kindergarten work, but this should be either reproductive or original work based upon principles previously developed. All the constructive work should begin in imitation and should become more and more independent until it reaches the point of free invention.

The question of a course of kindergarten work is one that presents no little difficulty. The gifts and occupations follow each other as parts of a complete whole, and each gift has its accompanying occupations which are specially adapted to impress the ideas contained in the gift, and to give the child control over some new material. In the best kindergartens, however, the children are not confined to one gift or one occupation, even at the begin-

ning. It is evident that we cannot take a child "through" a gift, as we would through a first or second reader, for each one represents a truth of nature that is never completed, but reappearing continually in old and new combinations. Still less can we "finish" an occupation, for this gives skill in handling material, and practice in applying knowledge, and these are needed for all.

As to the methods of procedure there is a difference of opinion; some claiming that each gift and its accompanying occupations should be taken up in the regular order, and the work be confined to each for some length of time before another is commenced.

Others, among whom is Supt. Hailmann, claim that we should follow nature in her diversity, and give the child any occupation fitted to his intelligence. even though he does not at the time see the connection between the contrasts presented.

The latter is unquestionably the broader view; but it makes the question of a course of work more difficult, and its application requires more knowledge of the philosophy of the kindergarten on the part of the teacher. It gives a broader development, however, and gives the pupils in the first grade a greater variety of materials with which to work; for, accepting the first view, we could not logically give them the tablets of the seventh gift, the sticks, still later on, nor the ruled slate for drawing, and as these are specially synthetic,—the occupations with which the child can create to the best advantage,—they cannot well be dispensed with in the lowest grade.

Considering the comparatively small number of places where the kindergarten work has been experimented with long enough to test the relative value of many of its features, it is a question whether a course of work could be laid out that would have any real value, further than to serve as an outline of experiments for other schools to follow. The work in the schools of any locality needs to be a gradual growth, for undue haste would make a failure inevitable.

In the La Porte schools the work is divided into circles, each covering two years. Each circle is divided into groups of related subjects, and a simple outline of the ideas to be developed under each of these is given. The first comprises form, solid and plain figures, lines of all kinds, their construction and relation to each other, drawing as an outgrowth of this, and coloring, on which considerable stress is laid. The second group comprises numerical relations, illustrated with objects according to Grube's method, and also size and measuring.

The third, the physical properties of familiar objects, natural history, observations of nature and geographical ideas.

Another group refers to language and its development, and still another to social games, songs, and calisthenics. Under each of these the materials to be used in developing the ideas are given, and the whole is supplemented by definite professional instruction on the part of the superintendent. As this course is the outgrowth of several years of experience and a broad knowledge of the subject, it is worthy of a careful consideration.

There are certain leading thoughts to be kept in mind which will determine largely the kind of work to be done in the different grades. The knowledge which the school gives is necessary if given in the right way and at the time; and the kindergarten work may serve as an aid to the acquisition of this knowledge, and at the same time serve a purpose of its own in the child's

development. Hence any feature of the kindergarten that can thus be turned to account is legitimate, if not beyond the child's power and comprehension.

To awaken the child's mind; to form habits of willing obedience, order, attention and industry; to give definiteness to his loose, unclassified knowledge, and to show the relation between things and their symbols,—these are the chief objects of the first grade work, and to these the kindergarten work must be subservient. Thus songs and games breathing the spirit of the golden rule and a love of nature, should form an important feature of the work at this period. Busy work in classifying the kindergarten sticks or cards by their color, shape and size, or by contrasts in number or position, is invaluable for the first few weeks. Mrs. Hailmann's first and second gift, beads, are almost indispensable for work in color, form, and number up to a period much later. For ideas in position and direction, the cubes, cards, and sticks are also excellent. To gain manual dexterity and to cultivate neatness and precision, pricking and coloring the forms of fruits and other familiar objects are excellent occupations, and as the pupil's intelligence develops, the work may become gradually inventive. The work with the folding paper, ruled drawing slates, sticks, and tablets may begin at the foundation, serving one purpose here and a higher one later on.

With the constant handling of objects, comparing them as to number and relation, a sound basis of sense perception is laid for all future work in mathematics. By the training it gives the hand it insures success in such forms of work as require manual dexterity. It leads to the study of nature, and thus lays the foundation for scientific study in the future.

The value of this thought-development, this laying the foundation sure, correct, and broad, and leaving nothing to chance, will tell on all the child's later work, and its influence will extend far beyond the school. It will open the door to the world of truth and beauty in nature and art; but its whole value does not lie in this, nor yet in the correct habits of thought formed. The dignity and self-respect that result from the consciousness of a power to do, are of no less value, and the cultivation of the higher and better impulses will secure for the child or the man the love and respect of his fellow-beings.

With the introduction of the kindergarten the work of the school room will be lifted out of the groove of mechanical routine. To make school interesting and attractive and development a pleasure should be the teacher's chief aim; and in giving the variety that child nature requires, and in imparting the atmosphere of life and sympathy necessary to real growth, the kindergarten is indispensable. Whether the best results are realized from it will depend upon the character and professional enthusiasm of the teacher. What Spencer says of the apparent failure of the Pestalozzian system applies equally here. "A simple unchanging, almost mechanical routine of tuition may be carried out by the commonest intellects with such small beneficial effect as it is capable of producing; but to pursue a rational course through the entire range of studies asks for an amount of judgment, of invention and of intellectual sympathy such as we shall never see applied while the tutorial office is held in such small esteem."

This is a sad truth, but if the work of teaching was such as to require a thorough knowledge of principles and methods, without which failure would be inevitable, the profession would occupy a different position to-day. It is

because our standard is so low that we reach no higher levels. In this, too, the kindergarten will come to our aid. Wherever a kindergarten has been established it has resulted in a higher educational standard. Wide-awake teachers have been better appreciated, and simple routine work has become more distasteful to the people. As the contagion spreads, the difference between real education and false will become more and more apparent, until the work and the workers rise to their true position in the public esteem.

In this awakening of professional enthusiasm we are proud to say that our own State is not behind. In several of our cities the kindergarten has been the subject of favorable experiment in the schools, and more than half of the number of teachers in attendance at the School of Kindergarten Method in Grand Rapids last summer were from our own State.

As the function of the public school—the great cementing force of the nation—is more clearly comprehended, we are becoming more and more dissatisfied with the old in aim and method, for the light of the new is upon us. Love, truth, and mercy, the greatest of all educational forces, find their expression in the kindergarten. By them the world has been raised to its present postion, and only these can lift it still higher.

Supt. E. P. Church asked if it was necessary for a teacher to have special instruction in kindergarten work.

Supt. J. W. Ewing: It is better to have such instruction, but not absolutely necessary. An extra room is not necessary if the teacher is strong.

In reply to several questions Supt. J. W. Ewing said:

The work lasts through three years. The pupils do as much or even more regular work than before. The pupils do not get the idea that all school work is play.

THE UNDERGRADUATE YOUTH OF OUR TIME.

ADDRESS OF HON. THEODORE NELSON, SUPERINTENDENT OF PUBLIC INSTRUCTION.

Mr. President, Ladies and Gentlemen:

Do I owe you an apology for introducing the topic which has been announced? I cannot think it possible. This swaddling (I beg pardon for the word, I mean no disrespect)—the hero of my story, is a prince of the blood, heir to a throne, born to have empire in the first quarter of the new century which, even now is knocking at our very door; he is the great man who will find his great hour in that swift approaching, enlightened and luminous epoch.

This embryo mind which we are to consider is an *epic* as well as a *prophecy*. It will create literatures, it will preside in cabinets, it will command in fields; in a word, it will have high control of a greater and more splendid era than the world has yet seen.

Once I knew a father to laugh at his boy because he trembled (and cried too, I suspect) at the pop-gun explosions of a little six-pounder. Happily it was hidden from that father's vision that his coward boy was born to hear what he, the father, was not born to hear, *i. e.*, the most terrific artillery explosions which ever shook our continent. We know not what experiences, strange to us, are awaiting the undergraduate youth of our time; and hence, fellow teachers, if, piquing ourselves upon superior knowledge, we are disposed to poke fun at him, we do well to be admonished by the saw: "He laughs best who laughs last."

In respect to social behavior the undergraduate of our time is a revised and improved edition of the ancient classic. For one thing, he means to be a *gentleman*. I give him the all-masterful, imperial gender, of course; for the fact is the same if he, that is, *she*, happens to be a *lady*. Those brutal social codes which once obtained in all universities and colleges are becoming quite obsolete, especially in American college communities of our time. Yet if you travel through Germany you will occasionally fall in with some university student whose face is covered over and badly disfigured with ghastly scars. You observe with some emotion one whom you fancy a hero come back from the wars; a young man who has shed his precious life-blood,

has even consented to be hideous for the sake of his fatherland. You are reminded of Sir Philip Sidney and of Gen. Wolfe, and you feel the pathos of all the beautiful sayings of the orators and poets asserting how, for one's country, it is sweet to die. But calm your perturbed feelings, my friend. You are a victim of misplaced confidence, or, at least, your admiration. in the present instance, is wretchedly misplaced. That scarred youth is not the chivalrous knight-errant you take him to be—he is only the maimed victim of a brutal, idiotic custom to which some student communities in Germany still believe it necessary to conform. One would suppose that the very atmosphere of a school of learning, of whatever grade, would be uncongenial and even repugnant to the social manners which have too often obtained amongst students; that the scholarly instinct, as it begins to develop in the mind of the average youth, would revolt against all brutalisms and barbarisms, whether in speech or conduct. May it not be that the old notion that woman had no right to the higher education had some logical relation to these brutalizing codes—that such codes were the necessary consequence of her exclusion from the societies where they obtained? Anyhow, the better thought and more rational practice of our own time have tended to clarify and improve the social atmosphere even of those temples of learning whose gates are still closed against woman by the rusty yet ponderous bolts of tradition and prejudice.

Whether or not woman has helped to do it, it has surely been done, and the effect is most gratifying. The undergraduate of our time does not esteem himself excused from the practice of those social amenities and courtesies which are binding upon the rest of mankind. He would be exceedingly mortified to be considered ungentlemanly, to be called a boor. Good manners, he thinks, and thinks justly, are the necessary adjuncts of sound learning; that they are to be expected and required as proofs of the polish which belongs to a truly educated mind; and, that to despise the essentials of good breeding, argues a defect, not of the *heart* only, but as well of the *head*. Nor, for one, do I regret that our representative undergraduate believes that a knightly, chivalrous bearing is an indispensable belonging of mere intellectual culture and power. Nor is he far from the truth. It is even possible that he concerns himself too much with the matter of his social status and behavior, and that, also, by reason of a somewhat exaggerated self-respect. He is right in believing that the basis of all true respect, for and from others, is an honest and noble self-respect. But our undergraduate is quite prone to give the fact of his own clear-cut, independent individualism a strong *asserted* claim to be seen and heard almost anywhere. To do him justice, he has a profound respect for his own self-hood, and hence, logically, though in a less degree, I fear, he honestly feels the obligation to respect all other self-hood. He believes that it is a fearful thing to live in our age and country (has he not been so taught?), and that, undoubtedly, he has "come to the kingdom for such a time as this." All of which being true, it is remotest from his purpose, or thought, to resign any of the gifts or responsibilities which either nature or Providence has with so much apparent *judicious forecast* entrusted to him. And so the chances are that you will find our generous youth a social reformer of the most pronounced and radical type. In this respect the American undergraduate of our time differs from his English predecessor of former periods, if not from the English undergraduate of to-day. Oxford opened her gates to Charles

the First when, in England, he could find no other resting place for the sole of his feet. Oxford suffered James the Second to heap upon her indignity and insult, to spit upon her, to despoil and rob her, before she could discover the smallest loop-hole in the doctrine of "divine right." Modern Oxford worshiped Gladstone the high tory, but she condemned and rejected Gladstone the progressive liberal. It would be easy enough to find a reason for the traditional conservatism of the great English universities; but I have no thought of proposing such an inquiry. I barely allude to the fact.

I suppose that the impulses and ambitions of high-minded, aspiring youth, are quite uniform the world over, and that wherever they are permitted to have free play, and to develop according to their own inherent law, they will move the individual and the mass to look with favor upon whatever bears the magical name of improvement or progress. The spirited youth is naturally an enthusiast. The very quickness of his blood makes enthusiasm as necessary to his being as light and air. But enthusiasm cannot be purposeless. It must have some end to achieve, some field upon which to display itself. In ancient times all youthful enthusiasm found vent in war. Then war was so common as to permit a proper division of labor and at the same time give propriety to the saying, "Old men for counsel, young men for war." But times have changed. War has ceased to be the chronic state of human society; hence young men necessarily usurp a share in the prerogative once conceded to old men exclusively. In our time, they give counsel, and give it unasked and freely. This audacity of enthusiasm, or what may be called "the courage of one's convictions," distinguishes the undergraduate youth of our time. What shall we do with his strong tendency to skepticism touching all so-called established truths, whether sacred or secular; his disposition to challenge the most venerable traditional ideas; his almost flagrant want of reverence for the past? Or, in other words, what shall we do with his keenly conscious, jealously guarded, boldly asserted selfhood? Really, I scarcely know what to advise beyond a simple recognition of the fact. It is not so portentious a fact, possibly, as some are disposed to think. Anyhow, it is a fact, and what are you going to do about it? It is especially futile to bewail it as a sign of the degeneracy of our times. We cannot suppress it by croaking, nor can we suppress it by other means, any more than mother Partington could suppress the Atlantic ocean with her mop. The wise teacher, I believe, will not attempt to restrain this incipient radicalism overmuch, nor will he worry about it overmuch. He will not rebuke it with too much severity, nor answer it with too much dogmatism. He will show himself interested and sympathetic, and, in fact, willing to learn, if his pupil is really able to teach. But he may venture modestly to offer the young gentleman a few suggestions, for which office he (the teacher) is, or should be, qualified by experience. He may suggest, for example, that in actual life the most plausible theories often fail to work out their expected results. The fault is not in the theory, but in the subject matter to which it is applied. Experience, therefore, is the one searching test of the real value of a proposition, or theory; a test which either discloses its worthlessness or illustrates its utility. A beautiful theory may be like an awning of tissue paper, pleasant to look at, but for shelter from the smiting sunbeam, or the pelting storm, utterly worthless. A dismantled ship in a tempest may have a pilot on board; but, for that hour and emergency, he is of no use—of no use till the fury of the storm is passed. It may be that the ship of state will need

good sailors, rather than learned pilots; practiced men, who can adjust themselves to *facts as they exist*, rather than mere theorists, who can only adjust themselves to facts, not as they are, but to facts as they think facts ought to be.

An eminent French marshal, being questioned concerning his ancestors by one whose only claim to recognition was his pedigree, promptly replied: "I am an ancestor myself!"

This is the spirit of the rising youth of our time. He feels but slightly the authority of ancestral opinion; he is an ancestor himself! Then, too, he is a philosopher, as well as an ancestor, and an optimist at that. So far, very good. He and his coadjutors, that is to say, the multitudes who will rally to his standard and follow his lead, will undoubtedly do for the world what all by-gone generations have failed to accomplish. His is not the historical conscience, but *the* conscience—a genuine fresh product. His political ethics, for example, are almost poetically ideal. Does the American college youth ever forget that he is a citizen of a great and free county? and does he hesitate to denounce the rank and flagrant evils which infect, and ever threaten to destroy, the body politic? He will abolish these evils when he comes to the throne! He will support candidates for office who are above suspicion, and he will vote a ticket, as white, as clean, as pure, as the driven snow. He will do away with the mischiefs of evil by destroying their source; he will tear up evil by the roots. May be he will. I should not like to discourage the boy. He has many teachers amongst "boys of larger growth." May be he can cleave into sections the dread darkness of evil which envelops our globe, and then cautiously approaching the awful brink of the precipice, heave it over the solemn abyss of the universe, and so send it smoking and whirling, sputtering and spitting fire, down to the bottomless pit!

May be he can do this tremendous thing which past generations have so signally failed to do, yet I expect him to find, by experience, that combatting evil in this world bears little analogy to a coal-heaver's job. We do not fight darkness in that way. Darkness won't break into chunks. It is a much better expedient to open the windows and let in the light. Oh, for the day when the son of man shall come, indeed, to our long-waiting world. Not with the solemn blare of an arch-angel's trumpet, nor with the awful pomp of black, wrathful and thunder-laden clouds, but in the universal diffusion of that Christian charity which St. Paul commends as the greatest and most divine of virtues. The vision would be amazing and overpowering could we see the day when this beautiful charity shall reign in every human heart. Upon our earth, gorged with the blood of untold millions slain by the hand of violence, the unspeakable calamities and miseries of war would be forever at an end, and henceforth swept from existence every diabolical instrument, or law, of man's invention, by means of which, through the travailing, crime-cursed ages, man has tortured, enslaved and crushed his fellow man. I pity the teacher who cannot teach, and teach sincerely and fervently, that there is such a charity already, in some degree, reigning in the human heart, and really fulfilling its office so divinely beneficient—a charity that "thinketh no evil;" a charity that "hopeth all things, believeth all things, endureth all things;" a charity that bends with tenderness over the heart-broken, and speaks, in thrilling accents, the comforting word; a charity that saves the erring, reaching down to the penitent sinner—reaching never so far down—the strong hand of efficient human help. Oh, voice which Elijah

heard, with face mantled and head bowed, becoming motionless and hushed! Then, with soft peace, slow-receding to the entrance of the cave, still waiting, still listening, awe struck and speechless, yet entranced and wonderously thrilled. It was a noble symbol, not of a divine spirit only, but of a charity equally divine; a charity self-denying, magnanimous, keenly sensitive, wisely tolerant, noiseless and still small; yet in real potency and effective power, the greatest and most benign of all the instrumentalities and forces which are to redeem and ennoble mankind. Let us eagerly cherish the hope that men and women will be inspired more and more profoundly with this noble sentiment, and this unselfish affection toward their kind. Let us eagerly hope that our undergraduate youth will be distinguished for this spirit of magnanimity and benevolence. We may, not unreasonably, expect him to make some improvement upon the examples which he inherits from us, as we of the present generation have somewhat enlarged upon our own inheritance.

And here let me pause, and in fancy look ahead only thirteen years. Events move so hurriedly, and scenes shift so rapidly, who can guess what remarkable changes shall have taken place in thirteen years? But my eyes are still upon this undergraduate youth, who is also remarkably changed. Me thinks I see him grown to the full stature of a man, his body compact, his brain mature, and his conscience not seared, nor his heart heardened, by the keen disappointments and bitter sorrows of life. Indeed, he is now an experienced man in the flood-tide of his conscious and serviceable strength. During the intervening period (the thirteen years only) he has taken hard blows, and to say the truth, striking straight from the shoulder, he has given hard blows. Yet I still see him as flushed with the animation of vigor and hope full armed and panoplied with disciplined faculties—faculties trained to execute with nice precision the severest mandates of his will—having well in hand much useful knowledge of books, reinforced and made effective by much equally useful knowledge of the world—of men and current events—I still see him—if eager, yet self contained and conscious of strength to endure or suffer as well as strength to do—this man I see as with firm swift pace he steps into the calm, fresh morning of the twentieth century since the advent of our Lord.

And, walking close by the side of him, not servilely loitering behind him, nor leaning demurely on his arm in slavish dependence; but vigorously apace with him, whom did you ask do I see? Oh, the poets have called her a beautiful creature, or, when it chances, "to the contrary notwithstanding;" very beautiful, or (such a conception is of course *ideally* possible) very ugly; but she is no *angel*, I assure you. (This remark is strictly confidential.) She is very, very human—the mother, sister, sweetheart and wife of the human race, and, at long intervals, in very rare and exceptional cases, its termagant and hag. also! She is the most highly organized of all the creatures we know of; she is endowed with the most exquisite sensibilities, and with the most mysterious and wonderful capacity for love and for suffering. She holds the voluminous place in the literatures of the world. She is much apostrophized and much sung. Her name is given to all the virtues. Who would think of calling a boy *Grace* Jones or *Patience* Brown or *Charity* Smith? Nor is this homage undeserved. Her general abstinence from vices too common among men literally saves the human race from an awful physical doom. Yet, through the ages, she has had to endure this strange contradiction; to hear herself lauded to the skies, meanwhile bending to a

heavy yoke of unequal burdens. Long ago our Anglo-Saxon civilization emancipated woman from the most galling and ignominious circumstances of her bondage to man—emancipated and really exalted her. Yet in some points it failed to do her full justice, whilst in other points possibly it was magnanimously generous rather than severely just. It gave her the regal place in the drawing-room and stage coach, as well as in poetry and art, yet it never quite recognized the value, dignity and sacredness of her own independent personality, or selfhood. The individual woman was nothing by herself, nothing to be disciplined, qualified and furnished for an independent career. As a detached spring, or wheel, belonging to some intricate machine (say a watch) is nothing by itself, so an individual woman was nothing, at least nothing very complete, or comely if detached from the destiny of an individual man. In this regard, a wholesome change has been accomplished in our time. A young woman may now cherish ambitions and dream of achievements which are worthy of all the talents God has given her. Miss Evans took the name of George Eliot in order to conciliate the public and to give currency to her incomparable works. Afterward she took the name of Lewes, and later on of Cross in order, I suppose, to conciliate herself. It was that "touch of nature" even in her superbly gifted mind "which makes the whole world kin;" but to-day a woman may safely meditate a destiny *bearing her own name.* The college girl of our time differs from her predecessor of other times in the circumstance that she is found in a college rather than in a "Young Ladies' Seminary." This is a significant change, indeed, and one in the direction of progress. The public sentiment which has opened to her the doors of institutions of learning of the first rank, and notably the doors of such institutions as our own superb, world-renowned university has subdued and refined the rough manners of the college boy, giving him the feminine quality *gentleness,* and has wrought in her a change no less gratifying and useful, giving her the masculine quality, *strength.* If the young man is not rude and boorish, neither is the young woman reclining and sentimental. She is no longer a vine, or anything of that sort, reaching out tendrils towards some strong masculine prop. Why, in our time, this frail girl has actually invaded and remorselessly overthrown the sacred realm of established truth! the revered and venerated truth that man's intellect is undoubtedly superior to woman's intellect! Don't you marvel that she had the temerity and boldness to dispute it? But she did dispute it, and pugnaciously affirmed the contrary. Yes, indeed, this delicate creature came forth from her embroidery and needlework, from her wash tub and broomstick, and, like an ancient champion, flung down her glove, and challenged to mortal combat "the mean thing"—the false-hearted old fogy who dared to say that man's intellect is superior to woman's intellect. Well, the brave, embattled champion of the masculine gender, being driven from the field, took refuge within the strong citadel of pure mathematics—an impregnable fortress—"the last ditch" as it were. But by this time her blood was up, and the invincible angel rushed onward in her conquering career. With her armor of circles and segments, and with her shining lance of signs, co-signs and tangents, and with her high ladder contraband of the metaphor of Jacob's dream, she scaled the walls and took full possession of the stronghold itself. La Place (the conceited fellow) told Mary Somerville that she was one of the two, and two

only, women in the world (Caroline Herschel I believe was the other) who could understand him; but to-day there are multitudes of women who can understand La Place, or any other man. Well, who is not satisfied to have it so? What lord of creation will register, or even express, his "not content?" If there be any such person in the radiant afternoon of this nineteenth century I would recommend to him the decency of silence. The most proper thing for such a man to do is to do nothing. Whatever protest he may offer will be as effective as "the Pope's bull against the comet," or as valorous dogs "baying the moon." And if the rising generation shall become more profoundly enlightened, and more eminently virtuous than the generation now passing away, who of us, my friends and fellow teachers, will not sincerely rejoice? To accomplish this result, to achieve this end—ah, indeed! *to hasten and bring it to pass*, is the eminent domain of the true teacher, his "field of the cloth of gold," the very apple of his eye, the supremest passion of his soul. Who of us does not feel his heart warm with peculiar affection toward childhood and youth? The man or woman in whose breast this feeling is capricious, or rare, has no call to teach and no right to teach. Oh, to pollute this holy altar by the touch of the finger of avarice! I most gladly and solemnly recognize the claim of all young persons with whom I come in contact to the best and most painstaking service I am able to give them, and the very giving of that service, by the intercourse established, by the hearty response, by the glowing love, has its own exceeding great reward. With unfeigned satisfaction I heard last evening the admirable words of Superintendent Howell, touching the aim of education and the value of character. Very nobly he outlined the whole truth of this weighty matter—gave its dimensions and analyzed its substance. Character is at the foundation of all felicity and dignity, whether amongst men or angels, whether on earth or in heaven. The influence and grandeur of a nation are upheld by character alone. If that fails everything fails. It is character (the *personal character* of the people who compose it) which most adorns, honors and perpetuates the state. It is character which gives integrity to commerce, authority to government, protection to property, and security to liberty and life. It is character that stands forever as the collateral of wholesome human law. Without character kingdoms must be overthrown and nations must rot. To build character upon the unfailing, immutable principles of truth and righteousness is the highest work of angels and the sublimest work of men. This, Oh, teacher, is the precious work by which you are distinguished, and the sacred name by which you are called. "See that no man take thy crown."

EDUCATION AND THE LABOR PROBLEM.

BY PRESIDENT L. R. FISKE.

Mr. President and Fellow Teachers:

I enter on the discussion of the subject assigned me with a deep conviction of my inability to solve the labor problem. Yet I apprehend that neither the officers or members of this association expect a solution will be presented, so that no one will be disappointed. There are conflicts in the existing relations of labor and capital which thus far have defied removal by our wisest and most far-seeing political scientists. It is made my work for the hour to lay before you some thoughts on the place education occupies in this problem.

In justice to myself I ask you to think of it as a very difficult question, but not to consider me presumptious in thus taking your time, for I do so by command of the powers that be. Failure is often as instructive as success.

It is necessary for us, at the outset, to direct our attention to the nature and source of the complaints made. These all come from the laboring class. Capitalists do not present any grievances. They do not ask for concessions and organize movements to obtain, forcibly or otherwise, such concessions. Workingmen affirm that capital is the oppressor and labor the oppressed; that this has been true in all ages, and up to the present time. All political oppression ever has been in the interest of capital. In African slavery, so long a political crime in this country, capital controlled the industry of the colored population who labored in unrequited toil. In this condition the laborer cannot acquire property; he is not even the owner of his mental or physical life; and there is no way by which he can hold the capitalist to any pecuniary responsibility. He is not a wage earner—only a human machine. So far as slavery has prevailed in this and other countries it marks the lowest condition into which labor can be crushed; there can be no destruction of rights more complete.

Workingmen tell us that in all the relations they sustain to capitalists they are oppressed; that they have no voice or but little voice in determining the rate of wages or deciding on the number of h urs they shall labor. Capital and labor do not occupy the same plane; they are not equal factors of an industrial democracy. Capital, it is affirmed, always has its hand on the throat of labor, and rules in a despotic spirit. Personal rights and dignity

go but a little way. Manhood is less than money. Wealth in the hands of one man rides over a thousand men who have no possessions but their muscles and brains. Such is the degrading, and we are told, wicked inequality that now exists throughout the industrial world. Hence the conflict which to-day is raging in all these lands.

Admitting this inequality, and that in it there is a considerable measure of wrong, the question very naturally would arise in an association of teachers as to the extent this unhappy state of affairs is due to ignorance. In other words, what can education do to remove just grounds of complaint, and destroy, or at least lessen, the conflict that has reached such alarming proportions?

It is by no means certain that they who have business capacity are all in the class of capitalists, and that they who do not possess business capacity are in the class of workingmen. Many men are capitalists, on a larger or smaller scale, through inheritance or other forms of good fortune to which they have done but little to contribute. And it is doubtless true that there is a large percentage of workingmen who are endowed with real business talent which only needs a fair chance to make itself felt in the world. The line separating capitalists and workingmen does not at the same time necessarily separate capacity from incapacity. That which will change the direction of this line, putting on the business side all who possess native business talent will accomplish as much for man in his industrial relations as can be wrought out for him. Will education do this?

Mental culture, which is synonymous with intellectual development, greater ease, precision, and power of action of cognitive faculties, may rationally be supposed to enlarge business capacity. It is estimated that an ordinary district school eduction adds fifty per cent. to the wage earning capabilities of a man; a high school education one hundred per cent.; and a college education two hundred per cent. As all the capital of the world is a product of man's mental energies, that which adds to their efficiency will be sure, to some extent, to increase this capital. Outside of mind there is no power. Force never generated a single dollar of wealth. It is only as mind utilizes force, employs it in channels where otherwise it would not operate, that capital springs into being. Hence in general terms the more of mind we put into the industry of the world the larger the amount of products that will accrue therefrom. Thus, it seems to me to be true, not only that education would secure an intellectual elevation of the laboring man, broadening his life, giving him more strength, making him a more intelligent citizen, a wiser legislator, and a safer guide, but that the mental power generated would act favorably on the industrial arts, that better scholarship would give us more successful business men, that greater intelligence would make itself felt for good in all the avenues of material production. It is conceded that one of the most dangerous elements in this republic to-day is the illiterate class. Seven millions of persons who cannot write their names or read a political platform, nearly one-third of whom are voters, hold the balance of power in civil affairs, and make the decision of political questions a traversty on intelligence. But illiteracy and vice very largely clasp hands. The indolence of the people has its focus among those who from lack of spirit or from untoward surroundings content themselves with the darkness of ignorance and the incapacity resulting therefrom.

Thus far I have spoken of education only as mental training. Can there

not, should there not, be something more? There is a professional or business side to education at which we may look.

That there is value in arithmetic, book-keeping, geometry, mechanics, etc., aside from mental discipline is clearly evident. They give a knowledge of methods on which skill rests. While they are disciplinary in the employment they furnish the mind; they also open up channels into the domain of business. If all our laboring men were versed in such branches of learning as have a business side, they would possess the capability of guiding the industries of the land, instead of being, many of them, mere human machines. Thus there would be mental power skillfully employed in the several great fields of production. Such men could not long be oppressed or trodden under foot. If education were compulsory, and greater prominence given to the classes of studies of which we are now speaking, would not laboring men be brought onto a vantage ground where they could wield decided power? In view of the issues pressed upon us by the labor problem, ought not greater attention to be given to technology?

But shall we stop at this point? In view of the disturbed state of the business world of which we are having sad experience should not more be done than to supply provision for the education of the people to the extent now indicated? That which is most alarming at the present time is the pernicious character of the theories in political economy which are boldly proclaimed, and in many cases made the rallying cry of large organizations of men. This is the age of unsettled political science. The whole vast reservoir of political thought is now being stirred to its lowest depths, and crystallization has commenced at many points. In the semi-ignorance of such large masses of our people there is the probability if not certainty that views, involving rights of property will be formed which contain the leaven of social disorder if not anarchy and ruin. What can be done? If the schools, the press, the platform and the pulpit cannot guide the thoughts of the people supply the light that is needed, clearly unfold the true principles of social and economic science, where can we look for help? Evidently the question is an educational one. A people will not be much worse than the standards they rear. Truth is mighty. When clearly unfolded and brought to the apprehension of the people it cannot for a long time be overborne. I am aware there are to-day no standards which all will accept. But cannot truth make her own standards? Is not her advantage over error so decided that she will force acceptance? Though in the ferment of hot discussion in which vicious and unprincipled selfishness plays so noisy and blustering a part truth may be scorned or her merits hurried out of sight, will not a thoughtful calm at last take the place of the wild storm, and truth appear in her regal robes? If the people can be educated in correct principles of political science, if in all our schools the young shall be made to clearly understand the principles of human rights; if the press shall be both wise and vigilant; if they whose office it is to teach the public from any platform of influence and power shall speak with no uncertain voice, the work done will contribute largely to the removal of the antagonism now existing between labor and capital, or at least it will go very far towards providing the means for the conquest of right. And in the triumph of right, antagonism must fade away.

I am sure I am not traveling out of my way when I state that there are moral and religious questions involved in this problem. The oppressions of capital are not the result of ignorance, but of inordinate love of gain, a grasp-

ing spirit that sets the moral law at defiance. Education will help the laboring man to gain and maintain his rights, but nothing else than moral and religious principles will keep the capitalist from usurping power which is an overthrow of rights.

Religious observances and the support of religious institutions in this country are fortunately voluntary. The slightest religious constraint or compulsion by the government would be an impairment of individual rights and a usurpation on the part of the State. Yet without the leavening and transforming power of religion in society the restraints put upon many are inadequate for the protection of the rights of property and person. For the inculcation of religious truth are there any responsibilities beyond the family, the Sunday school, the pulpit, and the religious press?

No explanation can be given of creation, physical and mental, without affirming infinite unconditioned intelligence. The conditioned universe must have an unconditioned cause. Agnosticism is a denial of the claims of philosophy and a sweeping of the foundation from under responsibility. With no God the universe is a maze, an inexplicable congeries of finite realities, a product without a producer, events without a cause, order without design, a fulfillment of the laws of reason without being the work of reason, a great chapter of thought without a thinker. From it no lesson can be learned, it has no meaning and no purpose. Does not science consist of half truths when it stops short of ultimate cause, leaving out teleology, place and creative efficiency? And must not so called science be feeble in its influence over the mind when it cuts loose from intelligence as its source, and intelligence as a supervising, controlling power? In other words, science without philosophy—without rational explanation—lands the thinker in a whirl of forces out of which order and purpose cannot issue, the darkness deepening as the gaze is more penetrating. I know of nothing more unsatisfactory and intellectually demoralizing than to sweep away all anchorage of thought. If knowledge is to possess decided power it must be able to justify its claims; it must lead us to an infinite fountain as a guarantee of its infallibility.

If now knowledge can be linked with infinite intelligence, a personal God, it brings with it an influence working for righteousness, conserving social order, upholding and energizing right, making education to be more than speculative thought, or the conception of invariable sequence in nature; it makes it to be a revelation of divine intelligence to the human understanding. And he who thus speaks to us, and has his eye constantly upon us, and of whose universe we are a part, is as a result of the same our Ruler. Hence theistic science brings with it the fact, and tends to awaken the consciousness of personal responsibility in all our relations in life. Right living needs something more than clear thinking for a producing force; there must be heart feeling growing out of deep moral convictions. Are we safe if knowledge be confined to cold, irresponsible thought? And does that condition of life meet the wants of the world in business, in government, and in the social state in which systems of thought do not bring the mind into relations with Him out of whose intelligence such systems grow?

In the analysis I have made, it seems to me education accomplishes all it is capable of doing in adjusting for good the conditions of the labor problem. It is not a panacea. In the freedom of the human will, the selfishness of the human heart, and the almost universal disposition to shut the thought of final responsibility out of the mind, no practicable plan can be submitted

which the philanthropist can work or the State enforce for the overthrow of wrong, and for the peaceful and righteous adjustment of the relations of labor to capital. Education made as nearly universal as possible, looking towards the discipline of mind, the application of natural science to the industrial arts, the inculcation of correct principles of political science, embracing a divine foundation for all truth and all reality, must be a decided power working in the direction of equal rights.

There are some barriers which we fear the work of education, however faithfully carried forward, cannot wholly surmount. One of these is the spirit of demagogism that is corrupting our entire political life. Politics and statesmanship are by no means identical. Statesmanship is far-seeing, takes the distant future into the account, lays the foundation on eternal principles of justice and right. It plans for the ages, seeking not the plaudits of the multitude and the immediate ascendancy of party, but the greater good of the country which can only be secured by equity and the broadest philanthropy. It does not bid for votes but takes them only as an endorsement of political truth. Demagogism, however, has it's highest aim in the ascendancy of party; it acts on the adage that "all is fair in politics," that anything is legitimate which will catch votes. It looks to the triumph of to-day, asking no questions in regard to the morrow only so far as personal or party ends are served. The dominant principle is selfishness in which patriotism is subordinate to party triumphs. It must therefore be unscrupulous and demoralizing, ready to pervert the best forces of our political life into channels of moral death. Now if, and so far as, labor organizations become political machinery, employing political methods and are ruled by political ambitions, the good results which would naturally flow from the spreading and deepening of the educational spirit will, to a considerable extent, be arrested. The social millenium which education might bring will come forward at a slow pace, if indeed it ever reaches this earth at all.

I see another great danger for us in the relations of this country to the old world. Should we succeed in educating the young reared on our soil there will however be an annual influx of people from across the sea, many of them without mental culture, and all of them brought up under political influences diverse from those which operate here; and judging from the past, a considerable number of them will be sure to have imbibed political theories of the most dangerous character. Our peril is not from the Chinese but from the immigrants who come from the hotbeds of European socialism. The anarchists whose deeds of daring and death are now filling the country with alarm are exotics inoculating our civilization with a virus more destructive to civil order than the yellow fever has ever been to the health of some of our cities. The best system of education most faithfully worked cannot largely correct the evils which assail us from this quarter. The danger is greater here than in Europe. Ours is not a police system in which every man is assumed to be ready for conspiracy, and hence must be shadowed by an officer of the government for the defense of the State. With us there is almost unlimited personal freedom of action, and in the absence of espionage a social cancer may develop to very dangerous proportions almost before its presence is observed by the public.

There is another tendency still which, while it has its good side, is also fraught with danger. I refer to the extraordinary growth of cities in this country. The ratio of the population in our cities, as compared with the

entire population of the land, is rapidly increasing. Nearly twenty millions of the sixty millions of our people are to-day living in cities. In this concentration of physical energies and mental life there is power. Here civilization as appearing in the arts and in subjective mental culture ordinarily finds its highest expression. There are the finest artisans, the most successful men of business, the most talented professional men, and the ablest editors in our cities. Here are gathered the largest libraries, the most complete museums in science and art, with the largest concentration of money, and the amplest appliances for every form of production. Cities provide advantages of great worth for certain forms of education such as cannot be found anywhere else. In the nearness of man to man, the coöperation of man with man, a million of human beings organized into the unity of a city, in many things can accomplish incomparably more than if scattered over forty or fifty thousand square miles.

But cities are the hotbeds of every form of fanaticism. They are the lurking places of crime. In them power is organized for evil with the greatest ease. No means has yet been discovered for educating the entire population of a city either intellectually or morally. Every form of evil flows into a large city, and successfully defies the enthusiasm of the schoolmaster, the appeals of the teacher of divine truth, and the strong arm of the State. It is in cities that all the worst elements from foreign countries congregate, and affiliate with that which is basest and most unprincipled of our native population. Is the prospect an encouraging one when with our present machinery of education—purely intellectual or religious—we attempt to eradicate the dangerous forces which are breeding in the dark places of these great centers of population?

Assuming it therefore to be conceded that education in improving the mental condition of the laboring classes will increase their power or efficiency as producers, that many of them will be able to pass over into the ranks of capitalists, and thus the business of the world be augmented and the amount of products become greater, it is necessary for us to inquire into the effect of this change on the conflict of labor with capital.

And here I must call your attention to the fact that the revulsions in the business world every few years, in which manufactories are closed, commerce lessened, and every form of industry crippled, are largely the result of overproduction. If the demand equalled the supply, if products were consumed as rapidly as they are created, men would not be thrown out of employment and the enginery of production silenced. Will not education enhance the evil which is so sad in our present experience and alarming in the outlook for the future? Unquestionably production in some form will keep pace with scholarship; nothing feels the quickening of the mental life sooner than the arts. Indeed civilization finds its expression with great accuracy in the industrial arts. The machinery and appliances of material production are not only a manifestation of the character of our civilization, but they measure it.

One of the saddest wails which fall upon our ears comes up from the thousands who tell us they are thrown out of employment by labor-saving machinery. The individual man is coming to be of small account in the industries of the world. More and more does machinery banish human muscles from the work shop. The child can now do what an able-bodied man could not so well do a few years ago; and half a score of men only are needed to turn out the work a hundred laborers could scarcely accomplish

within the memory of some of this audience. The more nearly universal education becomes, the more rapidly will labor-saving machines be invented and the more perfect will they be. If the cry is over-production to-day, what will it be in a few years?

Physical science has come to be pre-eminently the field of thought. No other age bears any comparison with the present in the number and importance of the discoveries of the principles and forces of nature. These forces are pressed into the arts. On every hand inventions are made to utilize them, and it does not take many revolutions of the earth on its axis to make a relative advancement which in the days of our fathers would require a century of time. Will not the markets in the future be flooded as they never yet have been?

In considering this subject we should not lose sight of the fact to which I have before adverted, that indolence is found very largely in the ranks of the illiterate. We must bear in mind that they have less stimulus to labor because less capable, that they lack the ambition which is found on a higher social plane; and that among them there is more commonly a prostitution of the moral powers through intemperance and other forms of vice. Somewhat in the ratio that this class shall be educated will more labor be performed, and productions still further augmented.

It would seem that at last wars must come to an end. The nations shall "beat their swords into plowshares and their spears into pruning hooks." Armies, whether in war or in peace, represent so much power withdrawn from productive industry; they belong purely to the class of consumers. A few figures will give us some idea of the amount consumed in war without any corresponding production. The United States has a war debt, but fortunately no great standing army. But in Europe the policy, if not the necessities, of the nations who have parceled out the territory and now hold the same by force of arms, is quite otherwise. The military force of Europe, in the army and navy, includes nearly 3,000,000 of men, saying nothing of contingents. Her national debt amounts to some $18,000,000,000. The annual revenue of all those countries is given at $1,725,000,000. It requires $1,400,000,000 to support these armies and pay interest on war debts, leaving only $325,000,000 for the civil service. Thus more than four-fifths of the revenue of Europe is consumed on military operations. For over twenty years we have been devoting a considerable portion of our revenue to the payment of our enormous war debt, with a good deal of it yet remaining.

If wars should come to a perpetual end large masses of men who now consume but do not produce, who in the nature of their profession not only engage in personal consumption but often to an enormous extent in actual destruction of capital, will become producers, thus augmenting the products of the world as compared with the consumption of the same, giving, it would seem, a larger overplus of products than now exists. Will not greater industry and exclusive devotion to peaceful arts plunge us into greater perils even than we have as yet passed through?

As bearing on the same side of the argument I should call your attention to the fact that there is a vast amount of consumption which does not reäppear in capability for industry—it does not generate physical power, or mental energy, or disposition to labor, but rather does it produce an incapacity for labor and a spirit of idleness. I refer to the consumption of alcoholic beverages, opium, etc. If all of this were saved by producing in

place thereof that which is useful in the arts, would not the equilibrium of production and consumption be still more greatly disturbed? Will not moral education so far as it is controlling, by increasing production and decreasing consumption, lead directly to a condition of enforced idleness, or an overstocking of the market to be followed by idleness? What will be the state of the industrial world when all men are peaceful, industrious, and educated so that skill shall be greatly increased, and labor saving machinery shall more largely do the work heretofore performed by human muscles and the strength of domestic animals?

Two reflections are suggested by these inquiries.

1. In a moral, peaceful state of society while production will be greater, consumption also will be increased, and profitably increased in the generation of greater capability of labor. The man who consumes $500 in drink and thereby grows poor, ought to consume $10,000 in some other way and grow rich thereby. That drunkard's farm is without barn, or stock, or fences, or sufficient agricultural implements; his family are in rags, his children are not in school. There are no books or papers for daily reading. Now if the direction of consumption were changed he might give employment to the carpenter, to the machinist, to the clothier, to the tailor, to the shoemaker. By employing these various trades they are made more prosperous while at the same time he gains wealth. It is evident that the prosperity of a country is measured not simply by the producing power employed, but by the extent of consumption when that consumption is rational—in other words, when it feeds the mental life and supports the physical. The great evil of to-day is not that we produce too much; we do not produce enough, but that we consume unwisely and destructively, not wisely and productively as we should do. All consumption should be productive, and then all productions will find a ready market.

2. With wise and rational consumption the number of hours of labor can be reduced without harm to industrial interests. Eight hours a day in such a state of society will be better for the capitalist than ten hours under the present order; and with such a system of consumption the laborer will support his family better on eight hours of earnings than on ten hours with the spirit and methods which now prevail. It cannot be that God's plan of employing the race involved exhausting toil of the larger proportion of the human family for ten or twelve hours of each day through life. The corrective to apply to the unfortunate order of movement as now existing is surely educational and moral. Neither alone will wholly remove the evils under which we are now suffering. As the support of the physical being cannot be a final end of our activities, but we are here for intellectual and moral purposes, it is reasonable to suppose that when our relations are perfectly adjusted, and we labor with right motives and for right ends, physical support ought to be secured with less than eight hours devoted—either in labor or business—to the creation of material products. In some way our mental life should receive a much larger share of attention than is ordinarily given to it.

The question we are considering is not purely an intellectual problem, but to a considerable extent a moral problem. And if with our increasing facilities for material production there should be a corresponding improvement in the moral life—in the aims of our life, in rational ends for which we labor, less of that which debases and more of that which elevates, I believe we

would finally reach a state in which not only would it be safe for the laboring man to have his time of daily work reduced to eight hours, but even to six hours—the world not growing poorer but even richer in the industrial arts, while at the same time the race would ascend to a much higher plane of sch larship and mental power.

I have only a moment left in which to speak of the relation of education to the mode of industry. Notwithstanding the teachings of Henry George it is evident that the most favorable condition in the social and industrial life is that in which each man dwells in his own house located on land held in fee-simple, and is his own employer. For the best results there needs to be the largest measure of personal interest in the success of the work done, the responsibility for the same being supported by that which stimulates to the greatest watchfulness and most untiring industry. We have seen that slavery in which property cannot be acquired or wages earned is at the farthest remove from this state. Surely when man has no ownership of his muscles, his time, or his intellect, nothing can be gained as the fruit of labor, hence every motive for industry is gone, and everything tends to idleness. Somewhat better than this, but furnishing only slight stimulus to industry, is that relation of capital to labor in which the latter is at the mercy of the former, the laborer having put little voice in determining the wages allowed. When capital is king, labor crawls in the dust.

Is there such a thing as democracy of business? Can labor and capital form a copartnership of interest? In the nature of the case can such relations be established between them that labor will reap a reward in proportion to the service rendered? Can it attain with capital an equal voice in the management of the joint interests of capital and labor?

The favorite channel through which to secure the end thus sought, at the present time, is organization. Laboring men are called upon to organize so as to act as a unit. Individuality is thus reduced to a minimum; it is the movement of the mass, an industrial phalanx bearing down on the opposition, on the principle that "in union there is strength." It is evident that through organization desirable ends of a public character can often be most successfully reached, and also wrongs made more potent. It is certain that temptations to usurp authority are in proportion to the power possessed. Within the last two or three years interference with freedom of business and employment through organized agencies has been alarmingly frequent. Such interference is in conflict with right; and that it can be practiced with impunity indicates disorder in the social life, and incompleteness if not weakness in the provisions by which individual interests are protected.

It cannot be denied that great good has been accomplished by employing the principle of association. Agricultural and mechanical fairs have contributed to the education of farmers and mechanics. Many of the granges have been a sort of college in the improvement of their members through the essays read and the intelligent discussions with which various scientific questions and practical interests have been treated. In the deliberative gatherings of the Knights of Labor and other allied associations there is an intellectual awakening, knowledge is imparted and gained; there is a broadening of views, and as a rule the outcome is nobler and stronger manhood. With incidental evils there is yet the lifting up of the laboring classes to a higher plane of personal life as well as the gaining of efficiency in industrial pursuits.

The removal of the conflict between labor and capital is now mainly sought

through coöperation. The two classes, employers and employés, are to be merged into one. Every laborer is to have a voice in the management of the industry to which his strength is given. Mr. Powderly said to the convention of workingmen at Richmond a short time since that if the business of the country was turned over to them they could not manage it because of a lack of education; that with most of them there is the absence of intelligence needed for the successful management of the industries of the land. It is a fact of history that coöperative movements have largely been failures. This should have been expected when in the hands of men who were without experience. And it is doubtful whether in "a multitude of counsellors there is wisdom" in business ventures. But will not practical ability be gained by experience, for there is knowledge and skill which can be obtained in no other way. I am disposed to think that in the coöperative tendency there is promise of better days. There will thus be a merging of interests which removes conflict. There will be the gaining of knowledge which widens the range of intelligence. Men will labor more industriously and thoughtfully when they reap direct benefit from the work performed; and in this there is a relative educational force.

But when the most is done that can be done through coöperation, and even after a long period of time, the labor problem will not be wholly solved. Some men—to say nothing of the large class of laboring women—will still be only laborers, with no voice in the management of industrial affairs. Many of these do not possess capacity for business. Misfortunes of various kinds will be sure to reduce others to the ranks of simply working men. The aged and the young will not find it possible to be in the tide of coöperative movements.

Indeed, I seriously doubt whether much that is permanently valuable will be accomplished by rapidly pushing the policy of coöperation in all the lines of productive and distributive industry. It must come as the effect of mental conditions rather than being the means of labor reforms. Surely this is true, that it cannot accomplish all that is needed to adjust the conditions of the labor problem so as to assure equal and actual rights.

For myself I reach the following conclusions in the study of this subject: Education is not a panacea for the evils of the industrial world. But it can accomplish much. The money expended to promote intellectual culture by the State, by churches, by individuals, is not capital sunk, but it reäppears in the increased capital of the world and in the physical comforts of the people so far as they put themselves in the way of receiving such comforts. Education will add to the capital of the country and improve the condition of workingmen. Associations for comparison of views, discussion of industrial questions, and to a considerable extent, for coöperation, will exert a reactive educational influence which in the future will come into service for the bettering of the financial condition of the people. Aside from intellectual culture and business training there must be the fullest coöperation of moral forces in the interest of production and consumption both. But with all we can do he is a dreamer who is looking for the speedy coming of the industrial millennium.

DISCUSSION.

Dr. H. C. Adams, of the chair of Political Economy in the University of Michigan, being introduced by the president, spoke in substance as follows:

The Association, he said, was to be congratulated on the interesting address of President Fiske. The fact that the Association assigned a discussion of this question a place on its program is another of the many evidences that the labor problem is claiming wide attention. This problem is, indeed, the question of the day, and all light that may be thrown upon it from any source must be welcomed by those seriously interested in its solution. It is encouraging that the larger institutions of learning in all parts of the land are giving special attention to the study of political science. Harvard has in its corps of instructors three, who give their entire time to questions of economy and finance. Yale, while not making these studies such a special feature, yet provides ample opportunity for their pursuance. Columbia college, of New York city has established a special school of political science, and Cornell University gives its students the opportunity of enrolling themselves in a special course of history and political science. This group of topics, too, is a marked feature at the Johns Hopkins University, and our own University, of which we are all so justly proud, is not at all backward in meeting this want, demanded in unmistakable language by the public.

But such educational efforts as these, while they certainly have a bearing on the labor problem, are not, in the minds of most men, so intimately connected with its solution as what is commonly known as technical education. Of technical schools there are in this country, as well as in other countries, a large number. Some of these are supported at public expense, as for example, the State Agricultural Schools, founded upon land granted for this purpose by the federal government. Some are supported as charities, as in our great cities the training schools for boys and girls. The workingmen, themselves, also, by their trades unions, have taken this matter in hand; while certain great corporations, as for example the Baltimore & Ohio railroad company, maintain schools for the education of such as may afterwards find employment in the corporation.

Since these schools are supported in such various ways, we are quite ready to believe that the ideas according to which they are managed are not altogether harmonious. And indeed, this is one of the most interesting features respecting these experiments, for they *are* experiments, and as such, the lessons which they teach must be of pertinence in the final solution of the present labor problem. But without entering upon a detailed study of these various schemes, it will be more to our present purpose to inquire if there is much to be hoped from technical education as such, and if so, what is likely to be the nature of the assistance it may render?

After speaking of the nature of the labor problem, Professor Adams proceeded to remark, that it was a mistake to regard technical education as a substitute for the old apprenticeship regulations. Under former conditions it was common to bind a boy to a master for seven years for the purpose of learning a trade. At the close of his apprenticeship he became a journeyman, and could legally become himself a master workman. While this custom was maintained, the workingmen had complete control over the conditions of labor. There was indeed no such thing as a labor problem, nor was it possible for a labor problem to make itself known as long as skill and manual labor exceeded in importance the element of capital in industry. But with the introduction of machinery, skill came to be of relatively less importance than capital, in consequence workers lost their ability to determine the conditions under which work should be done. The result is that laborers are at the present time more dependent than formerly upon the good will of those who give them work. Now it has been claimed that technical education will take the place of the old custom of apprenticeships, and turn out good journeymen, skilled in all parts of their trades; but if this be the purpose

which technical schools have set before themselves, they are doomed to disappointment.

The development of machinery and the extension of the principle of division of labor in all industries has rendered complete knowledge in all the branches of a trade unnecessary. If the old custom of apprenticeships could not stand before the changed methods of production, certainly no new and inferior way of attaining the same end can expect to succeed.

But if trades are not to be taught, what can the technical schools do? What rational purpose may they set before themselves? In replying to this question the speaker confined his remarks to technical schools of the lowest grades. One cause of complaint in the present condition of workingmen is, that having learned to do some particular thing, they find it difficult to transfer their labor to any other line of industry. They are, on this account, dependent upon the person who can give them work in their limited and narrow sphere. But had they learned at an early age the underlying principles of mechanics, and been subjected to a training of hand, and eye, and mind, they would find it much easier, in case they were thrown out of employment in one thing, to make headway in another. In thus securing to themselves an alternative for work, they are guaranteed some degree of independence. We thus discover one line of useful action for technical schools.

And again, technical education would render it feasible for the employers to grant certain demands which now cannot so readily be granted. It will be remembered that in the great strike on the Gould system of railroads last spring, that the workingmen in the shops demanded, among other things, that promotions should be made from the ranks. That is they wanted a "civil service reform" in the shops. And certainly if this can be done without detriment to the efficiency of the working of the concern, a man who has served long in a business has a claim to promotion over a perfect stranger. But one of the difficulties in the way of making promotions from the ranks is that the men in the ranks have not, as a rule, the knowledge required for a successful overseer or foreman. But if, before beginning to work at a trade, boys should spend some time in learning the simpler mechanical principles, and in gaining some knowledge of tools and materials, they would then be in a position to work from the ranks into places of greater trust and importance. And this would go far towards making it feasible to grant another demand of the workingmen, namely: the demand for tenure of employment in an industry during good behavior.

The Baltimore & Ohio railroad company have taken steps for supplying themselves with skilled workmen. A school has been established in connection with their shops. Boys who are so inclined may join this school and receive its instruction. At first no wages are paid, but as the pupils become skilled so that their labor is really productive, they are made allowances accordingly. The teacher is at liberty to use such machinery as he sees fit for the purpose of explanation or illustration. The pupil is also obliged to bind himself to remain in the employ of the company after his education is completed, for a short term of years. This seems to me one of the most hopeful of the many experiments now being tried. It recognizes the principles of solidarity of interests among all engaged in a great business. It is along such lines as these that we are to look for assistance in the solution of the labor problem by technical education.

In closing the speaker called attention to the fact that general education, also, bore, in an indirect manner, on the labor problem President Fiske, he said, had spoken of the prevalence of the commercial spirit in the nineteenth century. It is certainly true that the commercial spirit is strong, and that its power leads men to do many unchristian and dishonest things. But this struggle and push on the part of business men, of

which complaint is sometimes made, is largely due to the fact that the majority of men would not know what to do with their time if they should secure leisure. Money making is their only enjoyment, and consequently men continue to make money long after they have a competency, thus filling the opportunities which might better be passed along to others. This restlessness can only be overcome by substituting, in the place of the desire for gain, some other form of intellectual interest. This means that men must be educated before their minds can be rationally entertained in more than one line of activity. From this suggestion all teachers may gather inspiration.

HOW CAN THE COUNTY INSTITUTES BE MADE MORE PROFITABLE?

BY PROF. H. KING, OLIVET.

In dealing with this question it is our pleasure to make such suggestions as are born of necessities occasioned by life, growth and vigorous development in Michigan's system of county institutes, rather than suggestions springing from necessities occasioned by death, deterioration or decay. This I shall consider sufficient acknowledgment of authorities, without trying by quotations to separate material woven into the paper throughout. This paper lays no claim to originality, presents no revolutionary schemes, nor yet the finely articulated plan of any one mind, much less that of the author.

We have corresponded with some of the leading institute workers in our State, have gleaned from the experience of several of our sister States, and in this practical way have tried to reach some practical results in this exceedingly practical question—How can the county institutes of our State be made more profitable?

Aside from arriving at conservative views, as those naturally would be coming from men who are committed to the present system by having helped in its development; aside from arriving at hard facts, as those naturally would be coming from men of actual experience in the work, this method of treating the subject will especially commend itself to you, we hope, when you learn that the sole end of the paper is to arouse a healthy, honest and vigorous discussion of the whole question of institute work; for on the face of it this treatment grants you entire liberty to discuss, condemn or annihilate any point or points presented without in the least interfering with your fine sense of regard for the author's feelings.

The first reference we have to teachers' institutes in the State of Michigan was made by Supt. Mayhew in his report of 1845. After explaining briefly what was meant by the term, he said, "Would it not be well to encourage their establishment in this State by legislation?" and concludes with a recommendation for the annual appropriation of one, two or even five thousand dollars by the State for this purpose. In 1846 Supt. Mayhew again called attention to the importance of teachers' institutes and said that the first institute organized in the State had been held in October of that year at the village of Jackson; not under the direction of the State, however, but under the auspices of Jackson County Teachers' Association.

In '47 Mr. M. speaks of the awakening of a general interest in the subject and says that not less than a dozen institutes have been held. For the five years following they were held in a desultory way and with no regular system. During this time the superintendents repeatedly urged their importance as a part of the State educational system and at several institutes resolutions were passed asking for legislation and appropriations for their support.

In October of 1852 a rousing institute was held at Lansing under the auspices of the State Board of Education; it was attended for three weeks by over 250 teachers and was the immediate cause of awakening such an interest in the subject that the legislature of 1855 passed an act to provide for the holding of teachers' institutes and the Superintendent of Public Instruction was authorized to draw from the State treasury an amount not to exceed $1,800 in any one year for their support. The time for each institute was fixed at not less than ten days and the amount of aid for each was limited to $200.

Since that time, with the exception of 1858, institutes have been held each year under the direction of State authority. In 1861 the law was amended so as to reduce the time of each institute to five days and the limit of aid for each to $100. This law continued in force until the session of the legislature in 1877, when, mainly through the efforts of Superintendent Tarbell, it was repealed and a new law enacted in its stead. The provisions of this enactment are such that all examining boards and officers are required to collect from each male teacher receiving a certificate a fee of one dollar, and from each female teacher a fee of fifty cents. These fees are to be paid quarterly into the county treasury and set apart as a fund for the support of teachers' institutes. In addition to the fund thus derived the Superintendent of Public Instruction may draw from the State treasury for the support of institutes in counties where the local fund is not sufficient to meet the necessary expenses thereof an amount not exceeding $60 for each institute of five days' duration. The Superintendent of Public Instruction is also authorized to hold once in each year an institute for the State at large, which is denominated a State institute, and for the purpose of meeting the expenses of such an institute he may draw on the State treasury for an amount not exceeding $400. The limit of aid which the State may give to institutes in any one year is fixed at $1,800, plus the $400. Under the provisions of this act a new life was given to the institute system of the State. As a result of the State Institutes already held we have our "Manual of Institute Work," made up of outlines on each of the different topics presented at the county institutes, carefully prepared and revised by the leading workers in our State, which furnishes an excellent basis for uniform work throughout the entire State system; while the meetings of the State institute itself furnish a means of closer sympathy and coöperation between the central power, the superintendent and all those engaged in the work.

This hasty glance at the history of the question assures us that thus far the work has been entrusted to worthy men; removes all desire for destructive criticism, and should inspire us to meet the responsibilities and deal with the questions which the growing work and the varying demands of our educational system are forcing upon us.

Begun in 1845 amid the discouragements and difficulties of an infant commonwealth, yet only six years behind the first endeavor of the kind in the U. S., (Hon. Henry Barney in Conn. 1839) struggling on through the per-

sonal efforts of its founders till 1855 with no support from the already overburdened State treasury; 20 years later placed upon a firm financial basis and given a more closely articulated organization, the institute system of Michigan to-day represents between 60 and 70 institutes, an attendance of about 7,000 teachers and an annual expenditure of about $9,000.

Thus the system comes to us thoroughly established in principle; but it has yet to receive its more complete development in the detailed adjustment of its parts to our varied educational needs. The faults, if any, are not in the system, but rather in the administration of the system.

The testimony of the best normal school men of our country seems to be that institutes properly managed are useful auxiliaries to normal schools when such schools exist; and important substitutes for such schools where they have not been organized. In a State of the size and varied development of Michigan, it is simply impossible for the State Normal School to supply the needs of all. This truth then suggests flexibility in the amount of time given to each institute; a need which has already been recognized in extending the sessions to two weeks in our newer and more remote counties. But not only should the time be thus varied, but the kind of work done in the respective institutes should be granted quite as great flexibility.

We have seen that at one time in the history of our State the object and aim of all institutes was in a large degree one and the same thing, viz., to arouse public sentiment in favor of a State system. It is quite different with us now.

In our new counties the institutes may be most useful in solidifying and concentrating public sentiment in favor of public schools; in another locality it may prove useful in disseminating knowledge about the nature, instruction and moral culture of youth throughout the community; in one locality it is quite as necessary to devote the most of the work to effective instruction of the teachers in the most useful and practical methods of conducting and teaching a district school; while in another the institute should strive most effectually to imbue a corps of teachers in our higher and graded city schools, hitherto working toward various and conflicting results, with vital unity of purpose and sympathy of thought; and yet again and frequently the duty of the institute may be to combine and nicely adjust the work to fit all of these requirements.

Indeed, our State is peculiar in its variety of demands upon the institute system and to adjust the details of the system to so widely differing needs seems to us to be *the* demand of the day.

To this end then we suggest: First, a closer inspection and a better acquaintance with institute conductors on the part of the appointing power. To accomplish this end there are several ways open if we could rely upon a change of the law; but within the scope of our present law and in accordance with the principles of our present system we would suggest the formation of an advisory board whose duty it shall be to determine the fitness of institute conductors. It is too much in our enlarged condition to expect that the department, with the many other duties, can wisely and well determine the men for the many and increasing needs; and it seriously interferes with the largest success of the office to be held solely responsible for the failures of men appointed in good faith and the sole object of ill feelings growing out of a refusal to appoint men who have tried to make this a means of bringing themselves before the public. If such an advisory board could be formed as

the creature of this association, consisting of three, the Superintendent of Public Instruction its legal head, the professor of pedagogy at the State University and the principal of the State Normal School as the other members, perhaps, which board should meet once or twice a year, whose power should be advisory, the expense of which, at most nominal, to be met by this association, by the members of the board themselves or possibly by a decision of the Attorney General in reference to the institute fund. If such a board could be formed it would seem that we would thus touch the State educational interests at its three vital points, decrease the personal element in the matter of appointments, increase the wisdom and acquaintance of the appointing power, raise an effective barrier to any expectations of patronage and open the way for limiting the appointments to such conductors only as possess the culture and practical wisdom to appreciate the varied needs of the respective fields of work and to insure in a large degree the fitness of the man for the place.

To a great extent the conductor of an institute is responsible for its whole conduct and worth. One great fault of the present working is that men are called into this capacity who are not experienced enough to accomplish anything of worth in the limited time they have. Institutes are too often managed as occasions for personal display, and both speculators and hobby riders do much harm not only by wasting the time they occupy but in causing their victims in general to distrust and underrate institute work. The institute of the past has served its purpose and served it well, but must now give place, in much of our State, to something more practical and incisive.

The "band-wagon" has its place, but the glib talkers who under that dispensation have measured lances for the amusement of the crowd only, must surrender to those who can lead as well as amuse, who will train rather than talk; men who know their subjects in a masterly manner and have the good sense to use that portion of the subject needed for the occasion. Not the theorist who has grown too wise to show how to apply his theory as he unfolds his system, nor the rank youth who having learned his way insists on it as *the* way, sublimely ignorant of the fact that it can be adjusted to no well regulated system in the universe.

That part of the work which is a unit in its needs has large use for well-developed outlines on institute subjects, but in the degree the variety of needs increase, the value of set outlines must decrease.

In Michigan the need then would seem to be not a rigid syllabus, but a flexible syllabus maker found in the conductor; one whose fitness for the work is not determined by his success as a teacher or an author; nor yet by his failure as a minister or a lawyer, but by his success in doing this work; a man who is commended to the inspecting board by his scholarship, reputation, experience and special ability for this kind of service rather than by the results of any formal examination.

These are plain words, but I believe we have the courage to endorse them; the future efficiency of the work demands them and the present State corps of educators is such as to supply the men needed, as we shall now attempt to show.

We have at present from 60 to 70 institutes each year and from 35 to 45 conductors. This gives two weeks' work or thereabouts on an average for each conductor. Why change conductors so often? Anyone engaged in the work will acknowledge that the second week always runs with less friction

and more satisfaction to both conductor and members. If this suggests the truth, these frequent changes can be of benefit to but one class and that is to us, the younger aspirants for the work, and even for us 'twere better that a longer apprenticeship as instructors should develop in us a more efficient master to take the place of those rapidly giving way.

It would seem, then, in place to suggest as the second point that the number of conductors in the State be reduced. Were the amount of work allotted to each man increased to four or five weeks, and the number of conductors correspondingly decreased to 15 or 17, would we not have the solution of one of the greatest evils in our present condition well in hand? With an inspecting board of the acquaintance and the discrimination mentioned, they have the material in the State of Michigan with which to supply an institute with conductors, every one of whom shall be an acknowledged leader. New York entrusts her work to four, Minnesota eight, and Massachusetts to 18 men; why not reduce our number? We have opened the way for the change by suggesting the division of personal responsibility, if but for a brief time, in the appointing power, for which power we have named men of the courage to apply the principle if supported by the endorsement of this association.

This change would yet leave open to all the men who are now engaged in the work the occupation of instructors; and along this line would be furnished proper opportunities for the advancement of those men who prove themselves equipped for the work of conductors. It would in part, at least, meet the objection that is now raised, that our best material is not available at the time it is most needed; for by furnishing four or five weeks' work to the proper man the department is enabled to offer a pecuniary inducement sufficient to figure as a factor at least in his vacation plans, and this, too, without increasing the expenses of the system.

Again, this change would make it much more possible for the administration to appoint only such men as are in sympathy with the department. At a meeting of the institute conductors held in connection with the State institute or convened at a special call, the State Superintendent might come into the closest and freest relations with all his institute leaders. We anticipate at this meeting might be organized the institute campaign of the year, with reference to the peculiar needs of the localities and economy in the way of traveling expenses.

This meeting properly conducted might do much, very much, toward supplying the now felt need of local workers in the various counties, but which we cannot hope to supply under the present county system, for in meeting with 15 or 17 leading men from all parts of the State, convened for this purpose, the department of public instruction is enabled to touch the local pulse of the State's educational and social needs in a marked manner.

Thus closer inspection organized, we make a large step toward the solution of the last question to be considered.

What should be the character of the work done in the institutes?

We readily admit that a Baraga county institute of the most approved type would fall flat in Ingham county. Should we not as readily admit that an Ingham county program would kill beyond resurrection a Baraga county institute?

This, then, points to the fact that the work to be done in the institute should be that which the peculiar needs of that especial county demand. To meet those needs with any degree of success, two things are necessary: (1.) The

conductor who is to do the work must know the needs of the locality in part before he faces them upon the ground. The institute workers' meeting and plan of campaign will greatly aid in this matter. Again, if the conductor is appointed some time before his work is to be done, as the possibility of such a meeting anticipates, the conductor through correspondence with his local committees can learn much more of his field, and a return to the same counties or district the following years will insure him a much larger success than could possibly attend a stranger's efforts. (2.) He must be a man of sufficient breadth, practical sense and flexibility to comprehend his work and to adapt his program to the details of his work when he sees his material before him.

To attain this point we must rely upon the increased facility in the appointing power and the diminished number of men required for the work, as suggested above. Through these means we may hope to make more primary and fundamental the work in the newer counties and by grading the work in the older counties meet in part the demands of city and graded school teachers. While we would not yet, out of regard for the normal, healthy growth of the entire system, advise the establishment of city institutes, we must recognize a manifest injustice in taking, as we do in some counties, from one-half to three-fourths of the institute fund from the teachers who are engaged in the city and graded schools and almost entirely ignoring their wants in the course of instruction given in the institute of the same counties.

So much for the character of the special work. Now as regards the general work in the institute. There seems to be a general feeling that the number of subjects to be treated in each institute should be smaller, on account of the limited time given. If the conductor is held responsible for, he should have complete control of, the working of the program and the institute.

While the amount of academic or professional work to be done must and always will depend upon the conductor's manner of presenting a topic and the character of the teachers addressed, yet it would seem wise that each instructor should confine himself to the topic assigned until he has developed it, keeping in mind the end from the beginning.. He may dwell in detail upon that point most needed by the teachers before him, but it should be insisted upon that he should not only teach that portion of the topic which he illustrates by academic work, but that he should teach the relation of that part of the topic to every other part in his system from the beginning to the end. A crying evil of the present work lies in the fact that one man charms his institute and takes it by storm on his favorite point of a given subject; his co-laborer is equally happy in the presentation of his favorite point in the same subject and the topic is left there. Both good, excellent in their places, but no more capable of being adjusted the one to the other than an ornate marble column to a brick wall. The time is wasted, worse than wasted; for the young teacher, charmed with both, goes home and in her honest endeavor to adjust both to one system becomes discouraged, a poorer teacher, and condemns herself for that for which the instructor should alone be held responsible. Better the most plodding method with a beginning and an end, than this fragmentary, crazy quilt process. For truly would we appreciate in time of need the humblest log cabin in its completeness as a structure before the whitest chiseled blocks of whose adjustment we have no knowledge. Teachers, nine times out of ten, know how to add and subtract, multiply and divide in some way; they learned that in the schools; what they as teachers most need and what the institute to a large degree should

give them is the relation of these parts of their system or some system to the whole, the end to the beginning, before they can direct aright the steps of the children from the beginning toward the end of any subject.

Were more attention given to this matter we would hear less in these days of lightning methods, of such talk as all language lessons and no grammar, or all grammar and no language lessons. As well talk of making your house all foundation, sill or scantling frame.

Let the conductor control his institute.

Let each man develop his own topics.

Let the subjects be treated suggestively rather than dogmatically, leaving the teacher to be guided by good sense and correct principles rather than by empirical or other formulæ.

With a removal of the personal element from the matter of appointments, if but for the time necessary to introduce the change.

With a closer inspection and an increased knowledge of the conductor on the part of the department of public instruction.

With an elevated standard among the conductors which must be felt among the instructors.

With an attention to the needs of both teachers and people that will cause them to feel that the county institute means something for *them*.

With the system thus far well articulated and well applied, we are then in a position to speak with some expectation of the relation of attendance upon institutes to teachers' certificates, of a higher grade institute to meet the need of higher grade teachers; and perhaps of a local inspection in counties and even in townships which shall acknowledge its proper relation to the central power.

DISCUSSION.

Supt. W. S. Perry, of Ann Arbor, said:

My purpose shall be little more than to emphasize some of the points developed in the paper to which we have just listened. We seem forced to ask whether, if the institute has not outlived its usefulness, it does not need some heroic treatment to restore it fully to public confidence.

The institute has had a most creditable history. Its invention, if one may so speak, early in the '40's, was heralded as an agency that should speedily revolutionize the art of teaching, arouse public sentiment, and vitalize the whole educational system. One of its ablest promoters declared that it would reduce the cost of educating teachers for the public schools to one-fifth of the (then) present expense. Another said, "A few hours thus spent (in the institute) will frequently introduce the young and inexperienced teacher into the results of years of experience on the part of the older members." After all due admissions of the extravagance of such expectations, it must be admitted that for the past forty years the institute has been a powerful factor in our public schools.

But like every agency for good, it has its limitations—most serious ones. The institute problem is something like this: to take a body of teachers, actual and expectant, of all degrees of native ability, attainments, mental discipline, experience, and moral purpose, and by such instruction as can be crowded into five days, to give to these teachers a fitness to manage our schools and instruct our youth. We must, moreover, put into the problem the fact that the fragmentary attendance generally reduces the

average attendance to three or three and a half days. The heterogeneous membership tends to make much of the lecturing aimless if not random—the arrow is sent at a venture, in the hope that by some lucky accident it may hit the mark. Add to the problem the fact that of late years there has been a growing indifference, with many institute-goers, to the real work of the institute. They attend the institute for a pleasant outing, because it is popular, or more likely to increase their chances with the examining board for a certificate. Under such circumstances the two to four talks upon each topic, or branch of study, seems like attempting to sweep back the waters of the sea with a broom, or to attack the darkness of midnight with a taper.

As a matter of observation, it must be evident that the institute has to a considerable degree lost its grip upon the schools. Either from errors in management, or lack of growth to meet the varying demands of the schools, the institute is in danger of losing its efficiency and hold upon public confidence.

What, then, are the needs of the hour? Undoubtedly, first and foremost, as advocated in the paper, we need better conductors and instructors. We ought to have a professional corps of institute workers. comprising the best teaching talent that can be procured. No observing mind can fail to note that the institutes have suffered not a little from poor workers and poor work. It will be sufficient proof of this to run the eye over any list of institute workers for the last four or five years. We have simply to note the large number of men and women unknown beyond their immediate locality as teachers, or unknown as teachers at all. This is not saying that these workers are not good teachers in their respective localities, and not serving their communities acceptably. It is only saying that they are not equal to the unique and severe demands of the institute. As a consequence, we too often have desultory, irrelevant talk, and glittering generalities, or dry-as-dust outlines to be taken verbatim in the teacher's note book, and left without any clear, logical elaboration. There certainly ought to be more purpose and unity in the institute work, which would require more permanance in the corps of workers.

I heartily endorse the idea of a board of control, but I would extend its duties and responsibilities beyond that of selecting instructors to the whole management of the institute field, including appointments and methods of work. If possible there ought to be a school for institute workers, whereby teachers of ability and qualities for such work can be aided in getting the special fitness needed for institute service.

Several other States have a tolerably permanent, though small, institute corps. Why should not Michigan have one? No blame can be attached to the appointing powers for previous methods, for we have all, perhaps inadvertently, approved it. But let us not continue to blunder. Moreover, we cannot afford to allow the institute management to degenerate into the methods of party politics—a grabbing for spoils. Let it be understood that no teacher has any claim to an appointment as an institute worker, although to aspire to such a service will always be highly laudable.

In the next place, the institute should have a more definite aim. This would be accomplished best by a somewhat well defined course of study, graded so as to be sufficiently flexible for use in different localities. A certificate might be given upon its completion. What is more reasonable than that teachers be permitted to anticipate the work of an institute they propose to attend? At present the instruction is sometimes vague and pointless—a patch-work of a few simple devices, called "methods." The fact is our teachers need more of principles and less of methods. The cry for methods in our time has amounted almost to a craze. It has come to be a substitute for thinking. Genuine teaching is not an imitation, nor is it altogether empirical. The best

educational thought of our time affirms that true teaching is based on laws of mind—is a science, and this must not be forgotten in the institute. The still unsettled condition of educational phychology, as shown in the paper yesterday on "Pedagogic Principles," may well make us to hesitate in accepting and applying educational theories; but it still remains true that our best work for teachers, even in presenting methods, will be along the line of psychological laws. Mind-nature, and some of the fundamental laws of mind-growth, can be simply and successfully presented in any institute. Methods not consciously based on principles will speedily wear out—but psychology is fundamental and will work out its own methods.

I think there should also be some science teaching in the institute. I see no valid reason why our country school pupils may not be introduced to the more obvious facts and principles of elementary physics, geology, botany and physiology rather than to keep them ceaselessly grinding at the three R's.

In the third place, teachers in the institutes ought to be made more responsible for the instruction they receive—should be more work, less listless listening. Originally the institute seems to have been organized so that every member was, of necessity, a worker. Perhaps this end could be reached by examinations at the close of the institute. Examinations would not only test the quality of work, but they would weed out the shirks and hangers on, and would serve to keep the institute close to its legitimate ends. The institute is a brief training school for teachers, and the more nearly its methods can be made to conform to those of a good Normal school, the better. Again, the certificate of attendance ought to be made to signify more. I would give no certificate at all for a less period of attendance than three days. Where the personal knowledge of the instructor might warrant, would it not be well to endorse the certificate with a statement of the teacher's interest and work?

Lastly, I would omit the evening lecture, or greatly modify it. Formerly there was a worthy demand for it. The institute was heralded in many neighborhoods as an important event. Literary opportunities were rare. The evening lecture, generally of an educational character, fostered the educational sentiment of the community. But now it serves no important end beyond the ten dollars for delivering it. It consists of entertaining talks upon almost every conceivable subject in the universe, except those pertinent to the ends of the institute. The attendance is usually meager on the part of the citizens. The teachers could more consistently and profitably substitute for them the discussion of educational topics, such as these: Recesses, The Library in the School, Moral Instruction, Examinations, Exhibitions, Prizes and Honors, etc.

If the institute is to remain a part of the educational machinery of the State, as I trust it may, it ought to be reorganized, its proper sphere of operations determined, put under the direction of a managing board, vitalized anew, and made more responsible for results. And especially if we are to have but one Normal school, we ought to develop the institute to its highest degree of efficiency. I believe it can be made one of the most powerful agencies at our command for elevating the condition of our public schools.

THE READING CIRCLE.

BY L. C. HULL, OF DETROIT.

The tendency toward the scientific treatment of education must be recognized by every thoughtful teacher. The establishment of normal schools and the growth of institutes are the outcome of a desire for larger professional knowledge. We need not be understood as expressing unqualified approval of all the work of the normal schools when we say that these schools have made it possible to speak of a teacher's profession. They have tended to beget a high respect for the value of rational method; but the undue exaltation of manner over substance has in some instances resulted to the injury of their graduates and has shown us that there must be in the true teacher a union of real culture and the ability to impart the knowledge that he possesses. The county institute, State and national teachers' associations, superintendents' associations, and schoolmasters' clubs owe their existence to the growing conviction that a professional interest in our work should be begotten and nurtured, and that a hearty *esprit de corps* is not possible unless teachers shall meet occasionally, compare notes, and discuss concerning the notable theories or recent improvements in our art. The county institute must serve as the supplement of the normal school, must be the only normal school that most of our county teachers will ever know. At the meetings of our association we listen to papers prepared by appointment, and hope to gain help from social intercourse with those whose sympathy may inspire us, even if their words may not be wise or their thoughts profound. But institute and association meetings must be held at rare intervals. They are only an imperfect and weak assistant at best and are valuable as an excitant and a spasmodic stimulus rather than as a constant help. During the long intervals between meetings the teacher's mental growth must go on, aided by study and stimulated by daily attrition with pupils. The help gained by a convocation of teachers where papers are read and large questions discussed will not abide unless teachers shall become real students. By careful study of educational problems they may come to each meeting able to appreciate more heartily the good work that is done, and may find themselves hungering for a daily experience. And if we receive help and inspiration from the papers that are read on these occasions, how much more value must we find in a careful study of the writings of some of

our real masters. Let us return to our homes on fire with enthusiasm. We open school with great show of life. We are likely to lose our enthusiasm when surrounded by the same old scenes. Our ardor is dampened by daily duties. Unconsciously we slip back into the same old grooves, teach in the same old fashion, use the same old illustrations, tell the same old stories in their proper places, and declare that teachers' associations are good for nothing. The inspiration of the day has not been reënforced by hard study and frequent comparing of notes with other teachers. But if a little circle of friends can be formed that will pursue a discreetly chosen course of study, each may inspire the others, and thus the impulse of the institute will last the year round. Most of us have learned, too, that without earnest study we can get little good from the hard work that has been done by some one else. School duties always try the patience and strength of an earnest teacher. But each vexing problem may become to us a source of strength, each trying pupil a study in psychology. The need of a constant help seems to be met by the reading circle—a voluntary association of teachers who are actuated by a common desire for professional help and inspiration. We have begun to learn the value of associated effort. In union there is strength. The most conservative of people do not wish to work alone; and only those that are supported by egotism or a fiery zeal for reform will dare to stand alone in undertaking new work.

The reading circle has been organized for the purpose of aiding us in the choice of books and in order that we may avail ourselves of the help that comes through associated effort. The organizers of the circle realize the inestimable value of reading as a means for gaining general culture or special knowledge; but they have also been wise enough to see the awful danger of an indiscriminate use of books. The choice of reading matter for a body of students is a most delicate and difficult task. None but a tyro in educational work will talk glibly of the ease with which he can select the supplementary reading that he would use in his school. To select a body of reading for general use is a herculean and thankless business. Those that have seen Sir John Lubbock's List of the Best Hundred Books, and the amendments and the comments that it has called forth, will see how clear-headed and broad-minded scholars may differ in their judgment. But we do not have here the impossible task of choosing a limited number of the best books for the use of the ideal scholar. The books that are chosen for the teachers' reading circle are to be used for a specific purpose and in a systematic way.

An appreciation of the best literature is an acquired taste. The art of reading intelligently is really a liberal education. The real reader is introduced to the soul of the author, not to a clothed image. Therefore few minds are strong enough and keen enough to appreciate the master work in literature. But each man or woman that pretends to teach should be mastered by a holy passion for constant self-improvement. We may not attain to refined culture or profound knowledge, but we should live on the high endeavor. Our profession is a growing one. He that strives by constant study to fit himself for larger work will surely grow into a finer type of manhood. Too many teachers become mentally stagnant by the time that they reach the years when their service should be most valuable. They should not complain, then, if they are asked to make way for younger teachers whose future lies before them. We are disheartened and humiliated whenever we see an

unprincipled ignoramus preferred to a strong, well equipped, and honest man. Few of us can well afford to be indifferent to the pay that we get for our work. But we do theoretically recognize the fact that our professional work is more valuable than dollars and cents can tell. We tell our pupils that they should set their affections on things that are higher than preferment and gain. We have not learned the first lesson in our professional life unless we know that the school must be conservati.e in this age of breathless hurry and that we must combat rampant materialism by the aid of spiritual forces. We must not disregard the means of grace that are offered us. If the children that are placed in our keeping are to learn the lessons that we aim to teach, we must know the avenues of approach to head and heart, and we must grow daily. Stagnation is death. The moribund teacher insults his living pupils, and brings his profession into well-deserved reproach. How may the teacher become thoroughly furnished for the large work that he has undertaken? There is only one way under heaven and among men, and that is by honest and persistent study. Does the reading circle promise to aid in this work? This is the purpose for which it was organized—its only *raison d'etre.* What advantages does it offer? Though it is yet in its experimental stage, it has brought forth fruit already. It has emphasized the lesson that they who profess to teach must know more than the lessons of the day, that teaching must be a scholarly profession, that the successful teacher must grow with and ahead of his pupils, and that a well-planned and systematic course of study is necessary for daily normal growth. More than this, the reading circle has shown many of us that the teacher's professional library is neither small nor contemptible, that the rational methods of our art may be defended by an appeal to scientific principles, and that sooner or later all our processes must be submitted to this court of high and last appeal. We have been inspired by the thought that the history of our profession is starred by great names, and that if we are true to our work we may claim a professional kinship with Plato, Seneca, Luther, Bacon, Fénelon, Arnold, and the other great teachers of the world; and such a consciousness of high companionship must beget and sustain a larger respect for our own work. We have learned, too, that the science of teaching has been carefully studied, that scholarly minds are making it a subject for profound research to-day, and that if we seek for arguments by which to defend the work that we are doing we may find them by careful study and reverent communion with great minds.

So much of the teacher's work is done alone that he often unconsciously acquires a dogmatic habit of speech without cultivating the ability to argue successfully with those that may condemn his work or his methods. There thus results a strange mingling of apparent assurance and real weakness. Unskilled in the logic of debate he finds that an irreverent world will be shrewd to detect the frailty of his postulates and will laugh at his cheap wisdom. Sooner or later each of us will be called upon to defend our work. The public school is never secure from attack by ignorant and designing enemies. Ought we not to be ready at any time to give a reason for our faith? How many high school teachers could construct an historical or scientific argument for the existence of the schools in which they work? How many superintendents of our city schools could defend successfully the use of public money in maintaining a system of schools? How many of us are able to detect the clap-trap of a sham reformer or to give intelligent aid

to a scheme for improving our system? And yet are we true to our work if we remain ignorant of the history and the science of our art? Do we not see that our profession is brought into merited disrepute by our weakness and sloth? Some teachers live in the last century.

"Suckled in a worn-out creed," they say that what was good enough for them must be good enough for the children of to-day. To these self-satisfied fools the reading circle makes no appeal. In this age of effervescing life if a man persists in living with Partridge and Ichabod Crane, the great world must bid him a hurried farewell and leave him alone with his idols and mummies. For him we may modify the words of Suckling's dainty lyric so that they shall read:

> If of himself he will not move,
> Nothing can make him.
> The devil take him.

We must study the history of our profession to avoid costly blunders. Children should not be practiced upon by quacks, the public treasury should not be drawn upon in order to try experiments that have already failed, or to make experiments that careful study would prove to be foolish.

No good work can be done by an indifferent worker. Teachers must realize that they are handling the world's choicest treasure. The thoughtful teacher must be overwhelmed with a sense of his weakness and ignorance when he seriously considers the fact that his work must last forever; that he has it in his power to make or to mar the eternal future of his pupils. Most teachers do recognize that they are dealing with spiritual problems. The coarse-grained and boorish teacher finds himself out of place at a teachers' convention. I may safely say that as a body we recognize no man's right to teach unless he shall bring to his work a tender sympathy for children, a broad charity for the weaknesses of his associate teachers, a cordial hatred of meanness and duplicity, a hearty contempt for ignorant and self-satisfied animalism, and an absorbing passion for the best literature that may help him in his work. This ideal is not impossible of attainment. The description applies to all the really good teachers in the world. But most teachers are so far from libraries that they must own the books that they read, and hardly any can afford to buy books that will not be of immediate service. We must seek advice. The officers of the reading circle have outlined courses of reading that are thought to be valuable and adapted to the needs of the largest number. The course may not seem to you wisely chosen. Do not therefore accuse the officers of the circle of ignorance or carelessness. If the course seems too severe, reflect that the books chosen were supposed to be such as the ordinary teacher would find helpful, and that you must be educating your mental digestion so that you may assimilate stronger food. If the course appears simple and weak, it were wise not to thank God that you are better than the ordinary publicans, but, cheered by the consciousness of your superior wisdom, to assist the local circle of your town and thus in time become convinced of your ignorance. The officers of the circle do not plead guilty to Mrs. Swinburne's charge of a "morbid development of intellectual presumption and moral audacity." They are wise enough to be modest. They know that any course of reading that is prepared now must be tentative. The reading circle itself is, of course, an experiment. The plan is not by any means new. Every little mutual benefit society formed for the purpose

of reading Shakespeare, studying German, or pursuing the Chautauqua Course illustrates the same principle, that two or three congenial people may aid one another in the study of problems in which they have a common interest. These societies have often degenerated into circles for mutual admiration; but this fact will not deter sensible people from establishing others. It may even be assumed that societies for mutual admiration have often done much real good.

Teachers often do their best work during the first years of their professional service because of their fresh enthusiasm and the exhilaration that comes from a consciousness of daily growth. The latter feeds the former. The routine demands of an exacting profession and the dreary drudgery that is inevitable in their daily work too often rob them of their vitality. The only remedy is such study as shall keep alive their appetite for self-improvement and make them feel that they are growing. For often has the reckless charge been made that the teacher's work is dull and wearisome, and lacking in incident. The work should be as varied as are the actions and motives of the human mind. And what more shifting and multiform than the operations of this wondrously complex mechanism? Could any study be more fascinating, or present a more limitless field?

REPORTS OF DELEGATES FROM COUNTY ASSOCIATIONS.

A committee from the delegates from county associations submitted the following report:

1. We are in favor of county supervision.
2. We think that some measure ought to be taken to secure a more general attendance of the common school teachers at our State Teachers' Association.
3. There should be a more general attendance at our county institutes.
4. That our district schools ought to be better provided with maps, charts, globes, clocks, bells, and simple apparatus in general.
5. That our truant laws ought to be so changed as to make them effective.
6. That provisions should be made for the grading of district schools.

DISCUSSION.

Superintendent E. P. Church of Greenville thought the attendance at county institutes was not as large as it should be. The truant law needs to be amended.

Superintendent J. N. McCall, Gratiot county, asked for radical changes in the supervision and grading of district schools. A county system of supervision would tend to make better schools.

Mr. A. R. Hardy, Ingham county, believed that the examining board should have the power of supervision. He also thought that the State questions sent out were too easy for use in all counties.

Prof. A. E. Haynes of Hillsdale said:

MR. PRESIDENT,—While I have been called upon unexpectedly to take part in this discussion, and so feel quite unprepared, yet I am willing to do what I can. I am in favor of these resolutions, and wish the committee had seen fit to add another favoring a longer tenure of service in the districts on the part of the teachers employed in our ungraded schools. Some have said, on this floor, that to remedy the present defects of these schools we must have a uniformity of text books. Others have thought grading them is the thing required, and others still, that county or township supervision would cure the defects. My opinion is that the remedy for most of the defects in our school system with reference to these schools lies in: 1. A proper grading; 2. A well executed plan of county supervision; 3. A longer tenure of service on the part of the teacher in the school where he engages to teach, and 4. A method whereby those who *ought* to be found in the schools, but do not attend, may be brought into them so as to receive

their benefits. I believe in the county superintendency. I do not believe it ever had a fair trial in this State. I am glad to be related to one man, who on the floor of this house, defended the system from first to last, both by his words and vote, until it was overthrown.

I wish, Mr. President, that we knew what part of the crime committed in our State is committed by the 25 per cent. of our school population which have not attended the public school. I am inclined to believe that the percentage of criminals from this class is very large. I think the State should take steps to gather statistics on this question that we might know the facts.

Mr. J. A. Sinclair spoke as follows:

We read in Holy Writ of a place where there was lamentation, weeping and great mourning. The picture is that of a mother weeping for her children, refusing to be comforted because they were not. In Wayne county the circumstances have slightly changed. There it is children crying for competent teachers and will not be comforted because they are not. The causes of this abnormal condition are not hard to find. They are, a few at least, the lack of a competent examiner or board of examiners, responsible to a responsible head, the head not to be removed too far from the body. The lack of a man thoroughly equipped and furnished for the work of supervision, and county supervision far preferable to the township plan. In a letter from an ex-superintendent, under the old system, he says: "In our county, judging from the little observation I have made, the present system of licensing teachers falls far short of accomplishing the work. I can see no advancement. The question is often asked, 'Is it any better than the township system?' So far as I can see, I would as soon trust it. Neither the township nor the present county system places the school interest in the hands of men who make a specialty of school work. The applicant for the certificate passes through the routine of question-answering. The certificate is given and the work ends."

The third great need is a sufficiency of qualified teachers. I am told by the township inspector of Van Buren that not more than one-quarter of the teachers under his supervision are qualified. I see no reason why the same state of affairs does not exist in other parts of the county. Although I think the statement is not a just one, it shows that the state of affairs must be bad. For this I can advise three remedies: 1st. The requirement by law of the completion of a certain course of study. 2d. A high standard in examination. 3d. The making the tenure of term, by law, to be coincident with the school year where the school is taught.

Supt. Geo. Barnes, the delegate from Livingston county, said:

The Livingston County Teachers' Association, one hundred strong, had instructed its delegate to ask for a county system of examination and supervision of schools.

The present township system is a failure for two reasons:

1. The inspectors are, too often, incompetent for the work;

2. They have little or no authority.

We should have a county superintendent or secretary, with authority not merely to advise, but to direct the educational interests of his county, and to correct any errors that may come to his notice. If the work of supervision in a single county is too large for one person, the superintendent should have power to appoint a deputy. The deputy should be responsible to the superintendent, so that there shall be no division of responsibility.

The work of examination and supervision cannot be separated with advantage.

The one weak point in onr present system of examining teachers is that the examiner knows little of the real work of the candidate.

The examiner looks into the face of a room full of candidates. He cannot form the acquaintance of each one. He has a few pages of written work, and from that he must grant the certificate. The examiner should see the teacher at work, and then he could grant certificates with more certainty.

Supt. H. M. Slauson, of Houghton, reported as follows:

Condition of schools, prosperous.

Needs.

1. A system of county supervision combined with the present system of granting certificates;

2. The township system of organization in place of the one now in vogue;

3. A compulsory or truant law not limited in its application to cities, but one applying to all children between the ages six and twenty-one who have not, by a fair test, shown themselves to be well grounded in the common school branches.

Supt. Wesley Sears, of Flint, said "amen" to all the good things that had been said by the others.

Mr. Stuart Mackibbin, of Pentwater, said:

MR. PRESIDENT,—There are employed in the schools of Oceana county about one hundred teachers, good, bad and indifferent. There are three graded schools in the county, the remainder ungraded, or so-called district schools. Of these teachers less than half are professionals, yet this moiety is of the best quality. It is comprised of ladies and gentlemen, some of them gray-headed in the service, who are an honor to their profession. Teachers who employ every means in their power to perfect themselves; teachers to whom examination has no terrors; teachers whose services are sought, and who generally continue term after term in the same district. The remaining teachers of the county are what might be termed irregulars, girls and boys, some of them unable to get the proper certificates, and who are teaching on "specials" granted on account of the necessities of particular districts, the good nature of the examining board, or the importunities of friends; some of them with no liking or fitting or adaptitude for the profession, hoping thereby to keep soul and body together till something else turns up; some of them earnest, conscientious young men and women who, having acquired the best education possible by the limited means at their disposal, turn to teaching, not because it is easier than other occupations open to them but because they hope to make themselves that rarest of all created beings, good country school teachers. I have nothing against this class of "irregulars." It is a necessary evil. It is from this class that the ranks of the professionals are recruited. The fittest survive, the wheat is separated from the chaff in short order. Our circumstances also render a class of cheap teachers necessary. Take, for instance, a new district. In many cases the inhabitants are pioneers, battling with hardships. They have built a school-house, of logs perhaps, but the best they could afford; to do this they have burdened themselves with a debt to be met by future taxation. Necessity compels them to the most economical management possible, and where is the expense greatest but in teacher's wages?

The blame for a poor school is not on the inhabitants of a district, who have in some cases cramped themselves financially to pay even the small wages allowed, but in the teacher, (with perhaps a special certificate) whose only aim is to get through with the

school as quickly and as easily as possible, with not sufficient pride to do present work well, knowing that he can the next term impose himself on some other district whom necessity compels to hire anybody with a certificate. The greatest injury comes from the fact that a succession of such teachers and such schools destroy the hope of anything better, so that the school does not keep pace with the advancement of the district and still continues to be knocked down to the lowest bidder long after the district is well able to make money a secondary matter in the hiring of a teacher.

And in this connection I will say I do not agree with the idea promulgated yesterday, that nothing but the most elementary studies should be taught in the ungraded schools, because of the few scholars who study higher studies. The same reason would close every school in Michigan above the primary. This plan may work all right where villages and money are plenty, but where the nearest graded school is twenty miles it would not. To at present limit the district schools of Oceana county to the work of a primary department, would be to drive every scholar from school at twelve or thirteen years of age, to shut out a large part of our youth from only the most elementary education.

The organization of our schools is to meet the demands nearest and most urgent. The three high schools of the county are organized to give, to such as may wish to devote the time, as thorough and complete an education as is possible, and not to fit them for higher institutions regardless of whether they go there or not.

The needs of the schools of Oceana county I should state to be:

1. Better education of teachers.
2. More intelligent and thorough supervision.
3. Uniformity of text books.

The institute is not losing its grip. There may be faults in its management but the institute itself is popular and appreciated among the teachers of the county. At least that was the sentiment expressed by the teachers at the last institute when it was intimated on the part of some that institutes are failures.

The first and second needs are apparent to every one. I do not say the teachers of Oceana county are worse, or the schools poorer superintended than others; they will average. The third need I would urge, not as has been argued, because it would be a convenience to the teacher, or an aid in systematizing the schools of the county, but on behalf of the man who has to buy the books. There are laboring men who are compelled to move frequently according to their employment. There are some persons in my acquaintance whose children attend the village school part of the year, and country school the remainder. As a consequence these persons must provide two sets of books, one for town, and one for country; and on returning to the country should they go into another district, a third set must be purchased. This occasions a heavy outlay, but one that cannot be helped under existing laws. As this is the greatest evil, here should be the first remedy.

Supt. J. G. Plowman, St. Joseph county, spoke for a better equipment in the line of school apparatus, and gave the following interesting statistics of a southern county of the State:

Exterior—81 good, 37 poor.
Interior—77 good, 41 poor.
Out buildings—79 good, 49 poor.
Desks—50 good, 60 poor.
Clocks—38 with, 80 without.

Dictionary—50 with, 68 without.
Maps—15 with, 103 without.
Blackboards—59 good, 59 poor.
Stoves—84 good, 34 poor.
Blinds—58 good, 60 without.
Apparatus—14 with, 104 without.
Ventilation—0 with, 118 without.
Bells—55 with, 63 without.
Playground in county, 50 acres.
Children in rural districts, 4,000.
Eighty children per acre on playgrounds.
Seventy thousand eight hundred square feet of district school-house room.
Four and one-fifth square feet per pupil in district school-houses in county.

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